DOCUMENT RESUME

ED 424 208 SP 038 174

TITLE	Teaching in the New Millennium: How We Can Prepare Today's Teachers for Tomorrow's Schools. Hearing on Examining Innovative Teacher Training Methods and to Provide Information as to How Teachers can Receive Quality Professional Development. Committee on Labor and Human Resources, United States Senate. One Hundred Fifth Congress. Second Session (Columbus, OH, June 15, 1998).
INSTITUTION	Congress of the U.S., Washington, DC. Senate Committee on Labor and Human Resources.
REPORT NO	Senate-R-105-597
ISBN	ISBN-0-16-057413-7
PUB DATE	1998-00-00
NOTE	74p.
AVAILABLE FROM	U.S. Government Printing Office, Superintendent of Documents, Congressional Sales Office, Washington, DC 20402.
PUB TYPE	Legal/Legislative/Regulatory Materials (090)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Educational Innovation; *Educational Quality; Elementary Secondary Education; Excellence in Education; *Faculty Development; *Futures (of Society); Hearings; Higher Education; *Inservice Teacher Education; *Preservice Teacher Education; Teacher Certification; Teacher Competencies; *Teacher Improvement
IDENTIFIERS	Congress 105th; Senate Committee on Labor and Human Resources

ABSTRACT

A Senate committee met to discuss the appropriate preparation of teachers for schools of the future. Senator James M. Jeffords from Vermont presented an opening statement and discussed the need for high quality, competent teachers. Senator DeWine's opening statement discussed how education has changed over the years and what it still needs to improve. The two panels of experts and witnesses presented their opinions, experiences, and expertise on the subject of teacher education, teacher certification, and teaching. The first panel included: the President of Moyerson Academy (Larry Rowedder); the Superintendent of Toledo Public Schools (Merrill Grant); an associate professor from Central State University (Mary B. Howard); and the Former Dean of Education for Central State University (Edward Wingard). The second panel included: the 1997 National Teacher of the Year at Mayerson Academy (Sharon Draper); the Associate Dean for Academic Affairs at the University of Cincinnati (Arlene Mitchell); the Assistant Superintendent and Co-Director of the Far East Regional Professional Development Center (Anna Marie Vaughn); the Professor of Education, chair-elect of the School of Education at the University of Rio Grande (Chormaine Lepley); and an Associate Professor of Chemistry at Cleveland State University (David Ball). An appendix provides the prepared statements of several individuals interested in improving education and teacher education (teachers, administrators, and university professors). (SM)

SP

S. HRG. 105–597

TEACHING IN THE NEW MILLENNIUM: HOW WE CAN PREPARE TODAY'S TEACHERS FOR TOMORROW'S SCHOOLS

ED 424 208

HEARING

OF THE

COMMITTEE ON LABOR AND HUMAN RESOURCES UNITED STATES SENATE

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

ON

EXAMINING INNOVATIVE TEACHER TRAINING METHODS AND TO PROVIDE INFORMATION AS TO HOW TEACHERS CAN RECEIVE QUALITY PROFESSIONAL DEVELOPMENT

JUNE 15, 1998 (COLUMBUS, OH)

Printed for the use of the Committee on Labor and Human Resources

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
● Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

U.S. GOVERNMENT PRINTING OFFICE
49–691 CC WASHINGTON : 1998

For sale by the U.S. Government Printing Office
Superintendent of Documents, Congressional Sales Office, Washington, DC 20402
ISBN 0-16-057413-7

SP038174

COMMITTEE ON LABOR AND HUMAN RESOURCES

JAMES M. JEFFORDS, Vermont, *Chairman*

DAN COATS, Indiana
JUDD GREGG, New Hampshire
BILL FRIST, Tennessee
MIKE DeWINE, Ohio
MICHAEL B. ENZI, Wyoming
TIM HUTCHINSON, Arkansas
SUSAN M. COLLINS, Maine
JOHN W. WARNER, Virginia
MITCH McCONNELL, Kentucky

EDWARD M. KENNEDY, Massachusetts
CHRISTOPHER J. DODD, Connecticut
TOM HARKIN, Iowa
BARBARA A. MIKULSKI, Maryland
JEFF BINGAMAN, New Mexico
PAUL D. WELLSTONE, Minnesota
PATTY MURRAY, Washington
JACK REED, Rhode Island

MARK E. POWDEN, *Staff Director*
SUSAN K. HATTAN, *Deputy Staff Director*
J. MICHAEL MYERS, *Minority Staff Director and Chief Counsel*

CONTENTS

STATEMENTS

JUNE 15, 1998

Page

Jeffords, Hon. James M., a U.S. Senator from the State of Vermont 1

DeWine, Hon. Mike, a U.S. Senator from the State of Ohio 3

Rowedder, Larry, President, Mayerson Academy, Cincinnati, OH; Merrill Grant, Superintendent, Toledo Public Schools, Toledo, OH; Mary B. Howard, Associate Professor, Central State University, Wilberforce, OH; and Edward Wingard, former Dean of Education, Central State University, Wilberforce, OH 10

Draper, Sharon, 1997 National Teacher of the Year, Mayerson Academy, Cincinnati, OH; Arlene Mitchell, Associate Dean For Academic Affairs, University of Cincinnati, Cincinnati, OH; Anna Marie Vaughn, Assistant Superintendent, Co-Director, Far East Regional Professional Development Center, Lisbon, OH; Charmaine Lepley, Professor of Education, chair-elect of the School of Education, University of Rio Grande, Rio Grande, OH; and David Ball, Associate Professor of Chemistry, Cleveland State University, Cleveland, OH 32

APPENDIX

Statements, articles, publications, letters, etc.:
- Merrill A. Grant 60
- Sharon M. Draper 62
- Charmaine Lepley 63
- David Ball 65
- Karen L. Scott 68

TEACHING IN THE NEW MILLENNIUM: HOW WE CAN PREPARE TODAY'S TEACHERS FOR TOMORROW'S SCHOOLS

MONDAY, JUNE 15, 1998

U.S. SENATE,
COMMITTEE ON LABOR AND HUMAN RESOURCES,
Columbus, OH.

The committee met, pursuant to notice, at 9:30 a.m., in room 128, Senate Finance Room, Statehouse Building, Columbus, OH, Senator DeWine presiding.

Present: Senators Jeffords and DeWine.

OPENING STATEMENT OF SENATOR JEFFORDS

The CHAIRMAN. The Committee on Labor and Human Resources will come to order. It is a pleasure to be here with you today in Ohio. And first I want to thank Senator DeWine for calling this hearing.

The issue of proficiency of our teachers colleges in providing the necessary skills to help the Nation in reaching our national education goals is one of the most important issues that our Committee has to face. I am excited to hear from the witnesses we have here to testify.

It has been 15 years since the national crisis of education was raised by A Nation At Risk report. The admonition was given in these terse words: If a foreign government had imposed on us our educational system, we would have declared it an act of war.

The goals of the "Goals 2000" were set into law in 1994. These goals are by the year 2000, which is just around the corner, all children in America will start school ready to learn; the high school graduation rate will increase to at least 90 percent; all students will leave grades four, eight and 12 having demonstrated competency over challenging subject matters; the Nation's teaching force will have access to programs for the continued improvement of their professional skills; five, United States students will be first in the world in math and science; six, every adult will be literate and will process the knowledge and skills necessary to compete in the global economy and exercise the rights and responsibilities of citizenship; every school in the United States will be free of drugs and violence; and every school will promote partnership that will increase parental involvement.

Yet, little has changed. There is some improvement in science but very little in math. Children are coming to school slightly more prepared to learn, but this is primarily due to better health.

It is obvious that nothing is going to change unless it changes in the classroom, and nothing will change in the classroom until the teachers change. And the teacher can't be expected to change until they have help in knowing what is expected of them.

In the most recent Goals 2000 report issued last November—I am on that Goals panel—we learned that in more than 40 States there was no change in the percentage of teachers who reported that they held a degree or held a teaching certificate in their main teaching assignment. In 33 states, no change was reported in the proportion of beginning public school teachers who participated in a formal teacher induction process.

Dindo Rivera, who travels around the country for IBM raising this issue, likes to explain it this way: If you were an office worker and had fallen asleep as Rip VanWinkle did for 20 years and walked into a modern office, you would go into catatonic shock at trying to do anything from answering the phone or type a letter.

However, if you were a teacher when you walked back into the classroom after your slumber, you would feel right at home in your subjects. That has to change.

Some changes are occurring. The concept of "social promotion" initiated in the' 60s is being challenged but creating serious problems for schools requiring remedial help. Literacy programs are being initiated early on to stop or reduce the inflow of nonreaders. But as to the crisis of math and science and other critical subjects, we have seen little in the way of results.

We must look closely at the colleges of education and at the way in which we prepare and educate our Nation's teachers. The approach that we now use needs to change. Schools of education must ensure that graduates are capable of facing today's challenges, not yesteryears, but they are unlikely to change unless the universities that host them pay more attention to them. In many instances, the schools of education are treated as step children. In most cases, the degrees issued are not enough to increase their capacity to teach updated courses and these updated courses are sorely needed.

We must focus attention on this issue. We first should modify our National Education Goals 2000 to highlight the issues of teachers qualified to teach one of the National Education Goals. We should also call together the presidents of the universities to challenge them to take immediate action to remedy the crisis. We must enlist the teachers and teachers unions and insist they, too, help out. And we must do what we should to give them the help necessary so that our schools meet our National Education Goals.

As many of you know, the Labor and Human Resources Committee has approved the Higher Education Amendments of 1998, and that bill makes strides in that direction, but it is not enough. This next year, the Committee will take up the authorization of the Elementary and Secondary Education Act and the reauthorization of Goals 2000.

In the interim, we must raise awareness of the problem and the need to change. The number of teachers is not as important as the quality of teachers.

On the Federal level, we must focus on promoting and ensuring quality. We don't necessarily need millions of new teachers—what we really need are millions of good teachers.

The need for good teachers has been recognized. The Hunt Commission Report, "What matters Most: Teaching for America's Future", has a goal of providing 100,000 nationally accredited teachers, but their goal is too far off in the next century. Their goal would provide one teacher for every school. We need one good teacher for every classroom and most certainly every new teacher graduating must be trained to be a good teacher. Every teachers college must meet that challenge and every present teacher must be given the training to be a good teacher. The present bill takes a large step in that direction.

Again, I thank you Senator from Ohio, Senator DeWine, for putting this hearing together. I am very interested in hearing from this exceptional panel of witnesses we have here to testify today, and I would also like to commend Senator DeWine for the many contributions he has made to the Higher Education Amendments, and I look forward to continuing our work together in an effort to improve teacher preparation.

OPENING STATEMENT OF SENATOR DEWINE

Senator DEWINE. Thank you very much. First, we are just delighted to have you here in Ohio. We are certainly honored to have you here. There has been no one, I don't think, in the U.S. Senate who has demonstrated your dedication to the children of our country in education more than Jim Jeffords. To have him here in Columbus this morning is a real honor on this kind of rainy Ohio morning, Jim.

[The prepared statement of Senator DeWine follows:]

PREPARED STATEMENT OF SENATOR DEWINE

Good morning, and welcome to the United States Senate Labor Committee field hearing on teacher education. Today's hearing is entitled "Teaching in the New Millennium: How We Can Prepare Today's Teachers for Tomorrow's Schools."

I want to welcome the Chairman of the Senate Labor Committee, Senator Jim Jeffords of Vermont. His presence here demonstrates his strong commitment to making progress on this issue—and I look forward to hearing his views today.

The purpose of this hearing is to look at one of the most crucial issues facing America today.

We all know how essential education is to America's future. That means we have to make the necessary investments in things like computers, and books, and school facilities. There is no denying that. But I think we would make a serious mistake if we concentrated on those items, while ignoring the single most important factor in any classroom, anytime, anywhere: The teacher

Back when I was at Bryan High School in Yellow Springs, Ohio, we were about to move to a state of the art new facility called Yellow Springs High School. I will never forget what our principal, John Malone, told us when that change was about to happen: This is a great move, but it is not what really matters in education. For education, two things are necessary—a good teacher and a willing student. Everything else is icing on the cake.

One of the greatest stories in history bears this out. Alexander the Great did not grow up with the Intenet, or computers in the classroom, or even—probably—a big fund for school repairs. But he did have an excellent teacher—a man named Aristotle.

As Aristotle's ideas changed the intellectual life of the world, Alexander redrew its political boundaries in one of the greatest military campaigns known to history.

The fact is, a good teacher can dramatically change a child's life. You only have one chance to be six years old—and who that person up there at the front of your classroom is, for the next nine months, is vitally important.

Many of us are lucky to have had at least one teacher who has dramatically changed our lives for the better. It is absolutely crucial that we make this experience a reality for more and more children.

That means investing in teachers—not just in their salaries, though that is certainly important, but in measures like improved teacher training, mentoring, and continuing education.

It means giving the teaching profession the respect it deserves.

We have to value teachers and encourage them. We need to do everything we can to help our teachers stay effective in meeting the rapidly changing educational needs of America's students.

Good teachers are second only to good parents when it comes to helping students learn.

Today, we focus on these hard-working individuals who lead our classrooms, and how we can help them shape an educated generation of young Americans.

I have recently participated in numerous education hearings, which have been useful in pointing out some of the challenges today's teachers face. I hope that this hearing will provide some insight into what we can do about this.

Based on what I have heard so far, both in the hearings and in talking to teachers in Ohio, I would say there are a number of things we absolutely have to do.

We have to attract the best people into teaching.

We have to give them the best possible training when they are still in college.

We have to give them the best possible training once they are already in the profession.

We have to provide them with good mentoring, both when they are in college and once they are in the classroom as teachers.

If we are serious about restoring America as an academic power, I believe that we have to act immediately to find solutions. In the past, education reform has not been bold enough—and our teachers and students are suffering very serious consequences.

Thirty-six percent of those now teaching core subjects—like English, math, science, social studies, and foreign languages—neither majored nor minored in those subjects.

A study conducted by the National Commission on Teaching and America's Future revealed that "more than one-quarter of newly hired public school teachers in 1991 lacked the qualifications for their jobs, and nearly one-fourth of all secondary teachers did not even have a minor in their main teaching field."

The Commission also found that "56% percent of high school students taking physical science were being taught by out-of-field teachers, as were 27% of those taking mathematics and 21% of those taking English."

This is bad enough—but there is also evidence that the least qualified teachers were most likely to be found in high-poverty and predominantly minority schools, and in lower-track classes. In fact, in schools with the highest minority enrollments, students had less than a 50% chance of getting a science or mathematics teacher who held a license and a degree in the field he or she taught.

This is a prescription for disaster on a truly national scale. With this clear lack of investment in properly trained teachers, we should not be surprised that far too many students are doing so poorly on standardized tests.

These teachers are—in almost all cases—dedicated, intelligent people who care about kids. Atter all, no one becomes a teacher in the hope of getting rich. Teaching is something you do when you love kids. You do it when you care about kids so much that you want to take what's best in our culture—and pass it on them.

These teachers want to do it. They are committed to doing it. They believe in doing it. We need to do more—to help them be prepared—to do it effectively.

It is inexcusable that a country that leads the world in so many ways does not do more to prepare and support its teachers—who are such a crucial resource in the lives of our children. The truth is, the United States will not remain a world leader unless we make a world-class investment in teacher quality—and soon.

I am encouraged that President Clinton has taken an interest in reforming the education system. Although I agree that we should be expanding the number of teachers, we must first address the quality of teachers in the classrooms. We all want our children to be in smaller classrooms—but I can say in all honesty that I would rather have my daughter Anna in a class with 40 students taught by a quality teacher, than to have her in a class with 15 students and an under-prepared teacher.

That is why we need to make a serious investment in increasing the quality demands of teacher certification. All children, from pre-K to 12th grade, deserve the chance to have well-educated, qualified teachers who will help them reach the limits of their academic potential.

We also need to tap into the expertise of people who have a lot to offer our children, but who have not trained specifically to be teachers. If Colin Powell wanted to teach a high-school government class, current certification requirements would make it difficult for him to teach it—despite his expertise in the field. Dr. Jonas Salk might have had trouble getting a job as a chemistry teacher. And someone who works as a translator at the United Nations might find it difficult to get a job teaching language.

I have introduced legislation that I believe will expand and improve the supply of well-qualified elementary and secondary school teachers, by helping States develop and implement programs for alternative certification or licensure of teachers.

I also think we need to invest more in teacher training facilities across the United States—to help train teachers who are either already in the classroom, or about to enter the teaching profession. There is an institution in Cincinnati called the Mayerson Academy that points out a very good direction for our policy. The Mayerson Academy was established in 1992 as a partnership between the Cincinnati business community and its schools. Its mission is to provide the highest quality training and professional development opportunities to the men and women responsible for educating the children of Cincinnati.

The Mayerson Academy shows what teachers today can accomplish when they are given half a chance. Let us build on that, and similar success stories, nationwide.

When it comes to education, our national task is clear: we must develop a system that will draw the best students into the teaching profession. The Federal government and the states need to work together to provide incentives for people to become teachers, and foster a greater sense of public pride in the teaching profession. Our success in helping our teachers today will be measured by their success in helping our children tomorrow. It is the future of our country, pure and simple, that we discuss in this hearing today.

The CHAIRMAN. Thank you.

Senator DEWINE. Our hearing today is entitled "Teaching in the new Millennium: How We Can Prepare Today's Teachers for Tomorrow's Schools." We might also add in that title "How We Can Prepare Tomorrow's Teachers for Tomorrow's Schools", as well.

The purpose of our hearing this morning is to look at one of the most crucial issues facing our country today. We all know, of course, how essential education is to our country's future. Of course, that means we have to make the necessary investments in things such as computers, books, school facilities. There is no denying that. But we will, of course, make a serious mistake in concentrating on those items alone while ignoring the single most important factor in any classroom, anytime, anyplace: And that is the teacher.

A number of years ago when I was a sophomore at Bryan High School in Yellow Springs, we were about to move into our new building. And it seems like class was always in a new building. We were ahead of the baby boom generation. Buildings went along with us. But we were about to move into our new building at Yellow Springs High School, and I remember toward the close of the school year in the old high school our principal coming around, John Malone, and Mr. Malone said something at that time that I would always remember.

He said, "You know, you are all excited about going into the new school building. All the community is excited about it. It is great. It is going to be wonderful. I am excited about it." But he said, "We have to keep things in perspective. I want you always to remember that, in education, there is really only two things that matter. One is a willing student and the other one is a good teacher. Everything else is icing on the cake."

And I think that's been true around history, and I don't think things have changed today, so our hearing today is to concentrate on that, the talk about the teaching profession, what we as a community, what we as a society need to do to demonstrate that we value it, that we think it is important, that we are entrusting our most important thing that we have in our life, our young people and our children, to teachers to a number of hours per day, and we need to be there to support them.

One of the great stories in history I think bears out the importance of teachers. Alexander the Great did not grow up with the Internet or computers in the classroom or probably a big fund for school repairs, but he did have an excellent teacher, a man named Aristotle. As Aristotle's ideas changed the intellectual life of the world, Alexander redrew its political boundaries in one of the greatest military campaigns known to history, and I am sure some historians or some teachers look up and say, well, maybe he didn't win every lesson that was taught him, but you know something about the history of Alexander the Great.

The point is, though, a good teacher can dramatically alter a person's life. You only have one chance to be 6 years old. A child only has one chance to be in the first grade for the first time.

Each one of us, I think, will remember our first grade teacher or second grade teacher or sixth grade teacher. We will remember that teacher for the rest of our life. The impact that teacher has on that child will be with that child for the rest of his or her life.

Most of us are lucky to have at least one great teacher. I suspect many of us have had many great teachers, each one of whom has dramatically changed our lives for the better.

It is absolutely crucial that we make this experience a reality for every child in the State of Ohio, for every child in this country, whether that child lives in the intercity of Toledo or Cincinnati or in Vinton County or wherever in the State of Ohio. That's an obligation I think that we as a society have.

This means investing in teachers, means investing in measures like improved teacher training, mentoring and continuing education. It means, frankly, giving the teaching profession the respect it deserves. It means giving the profession respect commensurate with the value we place on our children, the most important and precious thing each one of us has in our lives.

We have to value teachers. We have to encourage them. We need to do everything we can to help our teachers stay effective in meeting the rapidly changing educational needs of America's students.

Good teachers are second only to good parents when it comes to helping students to learn.

Today we focus on these hard-working individuals who teach our children. We focus today on how we can help them shape and educate a generation of young Americans.

I have recently participated, along with Chairman Jeffords, in hearings he has held in numerous education hearings which have been very useful in pointing out some of the challenges today's teachers face. I hope that this hearing this morning in Ohio will provide some insight into what we can do about this whole situation.

Based on what I have heard so far, both in the hearings and in talking to teachers here in Ohio, I would say there are a number of things we have to absolutely do.

We have to attract the best people into teaching. We have to give them the best possible training when they are still in college. We have to give them the best possible training once they are already in the profession. We have to provide them with good mentoring, both when they are in college and once they are in the classroom as teachers.

If we are serious about restoring America's academic power, I believe we have to act immediately to find solutions. In the past, education reform has not been bold enough. Our teachers and students are suffering very serious consequences.

We all know and have heard the statistics. We are told that 36 percent of those now teaching core subjects, such as English, math, science, social studies, foreign languages, neither majored nor minored in those subjects.

We are told a study conducted by the National Commission on Teaching and America's Future revealed that "more than one-quarter of newly hired public school teachers in 1991 lacked the qualifications for their jobs and nearly one-fourth of all secondary teachers did not even have a minor in their main teaching field."

The Commission also found that "56 percent of high school students taking physical science were being taught by out-of-field teachers, as were 27 percent of those taking mathematics and 21 percent of those taking English."

This is bad enough, but there is evidence that the least qualified teachers were most likely to be found in high poverty and predominantly minority schools and in lower-track classes. In fact, schools with the highest minority enrollments, students had less than 50 percent chance of getting a science or math teacher who held a license degree in the field he or she taught.

This is a prescription for disaster on a truly national scale. With this clear lack of investment in properly-trained teachers, we should not be surprised that far too many students are doing poorly on standardized tests.

These teachers are in almost all cases dedicated, intelligent people who care deeply about children. After all, no one becomes a teacher in the hope of getting rich. Teaching is something you do when you love kids. You do it when you care about kids so much you want to take what's best in our culture and pass it on to them.

These teachers want to do it. They are committed to doing it. They believe in doing it. We need to do more as a society, though, to help them be prepared and to do it effectively.

It is inexcusable that a country who leads the world in so many ways does not do more to prepare parents and support its teachers, who are such a crucial resource in the lives of our kids. The truth is, the United States will not remain a world leader unless we make a world-class investment in teacher quality. We must do it soon.

I am encouraged President Clinton has taken an interest in reforming the education system, as he did when he was governor of Arizona. Although I agree we should be expanding the number of teachers, we must first address the quality of teachers in the classrooms. We all want our children to be in smaller classrooms. It is every parents' desire, but I can say, frankly, that in all honesty, I would rather have my first grade daughter, which will be in the first grade this fall, Anna, in a class with 30 students taught by a quality teacher than to have her in a class with 15 students and a teacher who is not really prepared.

That's why we need to make a serious investment in increasing the quality of demands of teacher certification. All children, from pre-kindergarten to 12th grade, deserve to have a chance to have a well-qualified teacher who will help reach the limits of their academic potential.

We need also today to tap in the expertise of people who have a lot to offer our children but who haven't trained specifically to be teachers. If Colin Powell, for example, wanted to teach a high school government class, current certification requirements would make it difficult for him to teach it—despite his expertise in the field. Dr. Jonas Salk might have had trouble getting a job as a chemistry teacher. And someone who worked as a translator for the United Nations might find it difficult in the States to find a job teaching a language.

I have introduced legislation in Congress that I believe will expand and improve the supply of well-qualified elementary and secondary school teachers by helping States develop and implement their own programs and programs for alternative certification or licensure of teachers.

I also believe that we need to invest more in teacher training facilities across the United States to help train teachers who are already in the classroom or about to enter the teaching profession.

There is an institution in Cincinnati called the Mayerson Academy. We are going to hear testimony from them in just a moment. This Academy is an example of an academy that points out very good direction I believe for our policy. The Mayerson Academy was established in 1992 as a partnership between the Cincinnati business community and its schools. Its mission is to provide the highest quality training and professional development opportunities to men and women responsible for educating the children in Cincinnati and the surrounding area.

The Mayerson Academy shows what today's teachers can accomplish when they are given half a chance. I think we need to build on that and similar success stories nationwide.

When it comes to education, our national task is clear: We must develop a system that will draw the best students into the teaching profession. The Federal Government and States need to work together, along with local communities, to provide incentives for people to become teachers and foster a greater sense of public pride in the teaching profession. Our success in helping our teachers today will be measured by their success in helping our children tomorrow. It is the future of our country that we discuss in this hearing this morning.

Welcome to our first panel. We were scheduled to hear from Karen Scott, who is a science teacher at St. Francis DeSales High School in Columbus, but we were very sad to report that over the weekend her father died, and so she will not be here with us today, and we do express her and her family our sympathy.

Let me start from my left, your right, to introduce our first panel. This will be the same order we will go in to hear the testimony.

Our first witness will be Dr. Larry Rowedder, President of Mayerson Academy in Cincinnati. The Academy was established in 1992 as a partnership between the Cincinnati business community and schools. The mission of the Academy is to provide the highest quality of training and professional development opportunity to the men and women responsible for educating the children of Cincinnati.

Our second witness is Superintendent Merrill Grant from the Toledo Public Schools system. Dr. Grant has instituted many sweeping changes in the administration of the Toledo Public School System, and, as a result, proficiency scores and attendance have improved, suspensions have been reduced, and parents have become more active in the school system. Toledo Public Schools is an urban school district educating approximately 40,000 students. About half of the students are minority students. Dr. Grant is now in his 39th year as an educator. We are very happy to have him as a witness to testify today.

Our third witness on the first panel is Dr. Mary B. Howard. Dr. Howard is Associate Professor, coordinator of teaching education for elementary education at Central State University. She will discuss how her school attempts to prepare teachers to teach in urban areas. Dr. Howard, we are glad to have you as well.

The last witness on the first panel is Dr. Edward Wingard. Dr. Wingard is Former Dean of Education of Central State University and also just happens to have been my high school American History teacher.

We are delighted to have all of you with us today.

Dr. Rowedder?

STATEMENTS OF LARRY ROWEDDER, PRESIDENT, MAYERSON ACADEMY, CINCINNATI, OH; MERRILL GRANT, SUPERINTENDENT, TOLEDO PUBLIC SCHOOLS, TOLEDO, OH; MARY B. HOWARD, ASSOCIATE PROFESSOR, CENTRAL STATE UNIVERSITY, WILBERFORCE, OH; AND EDWARD WINGARD, FORMER DEAN OF EDUCATION, CENTRAL STATE UNIVERSITY, WILBERFORCE, OH

Mr. ROWEDDER. Senator Jeffords, Senator DeWine, we appreciate the opportunity this morning to come before you and testify. We value your interest and your commitment to this vital topic.

You have already made reference to the report "What Matters Most: Teaching in America's Future." We believe that this provides a blueprint for those of us in the business intending to make things better in our field for boys and girls.

The report, you will recall, offers five major recommendations. The first of those is to reinvent teacher preparation and professional development; No. 2, to fix teacher recruitment and put qualified teachers in every classroom; No. 3, to encourage and reward teacher knowledge and skill; No. 4, to get serious about standards for both students and teachers; and, No. 5, create schools that are organized for student and teacher success.

I will call your attention to three major ideas about these points. First of all, each of the recommendations we believe requires a solid professional development component. Second, we believe that change is a critical component. We cannot continue to do in our business what we have been doing expecting to get different results. And finally, this report, we believe, urges Federal participation and support in creating professional development schools.

The Mayerson Academy has just completed its fifth year. Just a little bit about the Academy.

It is a 501(c)(3) not-for-profit organization put together through partnership of the school, Cincinnati Public Schools, and the business community.

The doors are open at 7:00 a.m. in the morning until 9:00 in the evening. We are open 6 days a week, and we are open 50 weeks a year.

Last spring, spring break, when teachers go to the beach, supposed to leave, we had 713 teachers attend classes at the Mayerson Academy at no pay for them, simply on their own to become better at what they do.

Last week was the first week that school was out in Cincinnati. We had 430 teachers walk through our doors. Our big problem was overcrowded parking lots. On Tuesday, we had more than 400. On Wednesday, we had more than 400. So it points out that teachers are interested in becoming better at what they do.

Four assumptions I will share with you this morning that we have learned in our work in the Academy. The first assumption about professional development is that professional development is an expensive proposition. Oftentimes when we look at training, we look at it in terms of the cost of the trainer or the cost of the cookies and coffee and juice that goes with it or the cost of running the facility. The true costs, the major cost in professional development is the staff time that's required to put it in place.

You just take an example of a group of veteran teachers that would be at the top of the salary schedule with their fringe benefits may well be earning in the neighborhood of $300 a day. If 30 teachers earning $300 a day come to a workshop, we are talking about a $9,000 investment in people. People have been taken off the job for training. We have to think that's an expensive proposition.

Second assumption is to not do professional development is even more expensive. The idea that we are going to get different results doing what we have been doing simply doesn't work.

The third assumption is that doing ineffective professional development is in fact a negative investment. Teachers spending their time in workshops, in training sessions that, in fact, do not help them to change their behavior when they get back in the classroom or, more important to them, not help them children to be successful in terms of learning output is indeed a negative investment.

And then finally, a set of adult learning principles exist which, when skillfully applied, result in a positive return on investment. There was a day when we saw that simply as teacher training, teaches coming to workshops taking good notes, sitting up and listening. But through research, it is very clear that, in and of itself, will not help teachers to change behavior to any significant degree when they go back to the buildings.

The truth is, they must, first of all, have high school training, but it must be supplemented with coaching and support, mentoring.

No. 2 is it must be supplemented with facilitation, work with people back in the buildings to guarantee that what they are doing is good and to keep in there and keep it up.

Another important aspect is providing consulting services for those folks after they have taken part in training. And finally, the whole idea of job embedded training action and research plays an important role.

Finally, let me lend support to Senator DeWine's Bill 1741, the idea of establishing more Mayerson Academies across the country. I will give four major points to support the bill.

First of all, the proposal is doable, and it is measureable. The business community put $4 million in place in Cincinnati 5 years ago with the idea of creating a professional development organization. The greatest fear at that time was that we would open the doors and no one would come. I have given you some evidence that that in fact is not the case. In fact, over the first 5 years, we have done more than one-half million teacher hours of training in the Academy since the day the doors opened, more than one-half million teacher hours of training.

It is doable, and it is measureable. It is brick and mortar. You can see it. You can see people in the facility 6 days a week and see learning taking place.

No. 2, replication as a strategy has worked successfully in business. So we have many visitors come to the Academy from throughout the United States and go back home believing that they will take a couple of the ideas and create a similar type of organization in their community.

Today, to date, to the best of my knowledge, that has not occurred. People go back with good ideas. We believe replication of the Academy itself is the way to go.

No. 3, the project would impact the quality of teachers and teaching nationally. If you can just imagine taking a dozen Mayerson Academies and spreading them evenly throughout the country, the impact that might well have.

Now we presently not only work with the teachers of the Cincinnati Public Schools, we have contracts with six other schools systems in the Greater Cincinnati area. We also do work nationally. For example, we do principal training in Seattle, Washington, we do principal training in Concord, New Hampshire. And just this week we are doing training in Chattanooga, Tennessee, so we are able to stretch well beyond the boundaries of just Cincinnati.

And finally, number four, the idea of replicating Mayerson Academy nationally is that it promotes an ongoing self-sustaining school/business community partnership that is workable. And, again, one only need point to the one that we have in place.

I served as a public education teacher for 6 years, as a principal for 7 years, and then as superintendent for 16 years in four different states across the country. Now, I believe I have had experience in the field, and I will only reiterate, Senator Jeffords, what you said in your opening remarks, and that is that after 30 years in the business, it is very, very clear to me that teachers do make a difference.

We respect and appreciate the work that you are doing with teacher education, and we encourage you to finance the cause. Thank you.

Senator DEWINE. Thank you very much. Dr. Grant.

Mr. GRANT. Senator Jeffords, Senator DeWine, fellow colleagues, members of the press and public. Thank you for this opportunity. I have looked forward to this for several days because this is an extremely important topic to everyone, but, from my perspective, essentially for those who represent the urban setting, urban education.

As you know from my resume, this is my 39th year. Come July 1st, I will have 40 years, starting my 40th. In fact, I think that starting in the 1998-99 school year, if I am correct, the Council of Great Cities, the 50 largest school districts in the Nation, I think I will be chronologically the oldest superintendent and the one with the greatest length of service.

Now, I don't know if that earns me any more respect. It probably will not from my colleagues, except for three of those who serve, one in Atlanta, one in Pittsburgh, and one in El Paso, so my former superintendents of Tucson and I are very proud of these young people who are coming up in the profession.

Since you have a copy of my presentation, I would like to really emphasize six major points, if I could.

And, again, my perspective, my love and my life is in the urban school districts because that's why I was trained as a teacher in the Toledo Public Schools, and that's where I will end up as a superintendent in Toledo Public Schools.

I think in order to improve the teaching profession, in order to improve the teaching profession, we have to look at six major areas:

No. 1, we as urban leaders and urban school districts have to work with the community because it is not just the responsibility of the school district to retain and keep the teachers, it is the responsibility of the community.

Case in point, Toledo Public Schools, the Department of Human Resources Personnel Enhancement Committee, consisting of NAACP representation, Urban League, labor unions, management and business community, who work together to hold the district's feet to the fire to make sure they create the very best teachers in the Nation in Toledo Public Schools, and within that major goal is an absolute necessity to recruit minority teachers to a district that is a majority and just pass that point of being 52 percent minority student population.

Point number two. To improve the teaching profession, it is not simply enough to recruit. The district's responsibility is also to nurture and cultivate that population, because many future teachers are in our schools right now.

So as we look ahead to the kind of population that you serve and will serve, it is important that you also partner with the universities in the area to recruit and to start identifying them in recruiting the very best people.

Three cases in point. This year, the University of Toledo, Bowling Green State University. Case in point, number one, partners program, identification of 16 future teachers who have currently just graduated high school seniors in Toledo Public Schools who will enter the University of Toledo in the fall tuition free.

Their goal in life is to become the best classroom teachers possible. Partnering with the University of Toledo is the Toledo Public

Schools. And that goal is the best classroom teachers possible. Their commitment is to come back and teach in Toledo Public Schools for 3 years. Thirteen of those 16 young people are minority individuals.

Second program in point, Bowling Green State University, through the Office of the President, the Presidential Leadership Training Program, 22 high school seniors were identified, not necessarily committed to education, most of them were, but they will enter Bowling Green State University tuition free in the fall, many of them coming back to teach in Toledo Public Schools with the same commitment, 3 years.

Third program, parent-teacher. Parent-teacher professionals are 400 paraprofessionals in Toledo Public Schools, many of whom have not had the time to go back to school to earn their degree but have the time and experience. I am really pleased to tell you this morning 40 of those paraprofessionals have been identified in Toledo Public Schools and will enter the University of Toledo in the fall tuition free, and those tuition free programs are paid for by a combination of State, local, and University funding.

So we have a work force of 78, maximum of 78 people who are being trained, committed to Toledo Public Schools, majority of them will come back and teach in our school district as professional teachers, not forgetting from whence they came.

To improve the teaching profession, new teachers must be able to gain advanced degrees into their fields. This year, Toledo Public Schools and the University of Toledo landmarked a decision in March, all new teachers entering Toledo Public Schools in the fall of 1998 are entitled to work in the master's degree program in the urban program tuition free, sponsored by the University of Toledo and Toledo Public Schools.

It is imperative new hires, new teachers are encouraged to major, to really become professionals in their major field. We have had experiences with raising proficiency test scores in the area of math in our school district because we have math specialists working with elementary school youngsters. So, theoretically, let's take, for example, as a result of the working partnerships between the universities and public schools in the Toledo area, let's take the valedictorian at Rogers High School, one of my seven high schools, happens to be an 18-year-old African American female, will enter Bowling Green State University in the fall, 4 years of schooling, Elementary Education Committee, tuition free, comes back to teach Toledo Public Schools for at least 3 years—and our effort to retain this person for longer than 3 years will be major—has the opportunity, then, to earn the master's degree in her major field, and I hope that some day that this young lady will be sitting in my seat in the Toledo Public Schools.

No. 4, to improve the teaching profession, school districts must provide the best and most comprehensive continuing education activities and programs for their teachers. That's what it is all about. You can't just hire. You have got to train. And that includes the superintendent's office.

Everyone, everyone must be trained and retrained in the urban setting. We must retain the people, then, that we recruit through that effort.

Two cases in point in Toledo Public Schools in terms of a comprehensive training program. We have been recipients of one million dollars from Governor Voinovich and the State Legislature in the State of Ohio, one million dollars, to do similar activities through the Mayerson Academy. And ours will be different. Ours will be in different sites focusing on the teaching of reading.

Every teacher in our district will be a teacher of reading. Elementary teachers will be teachers of reading in math. That will be our focus, maybe oversimplified, but not really. Reading and math. At the same time, partnership with the University of Toledo, we are fortunate this year, through the President's Office and Dean of School of Education, to receive a National Science Foundation grant of $5 million to focus on the teaching of science to Toledo Public Schools, and we are in the process of identifying 30 teachers who will go out in schools and work with other teachers in the teaching of science.

Case in point number two is the school model. If you are going to be effective in our schools, you have got to have teachers who are master teachers, who work with other teachers. And the school model in Toledo Public Schools is in its third year of operation, under Title I, Elementary and Secondary Act, identifies those master teachers who then work in differentiated staffing patterns with other teachers to train other teachers in reading and math. And we are continuing our search for those master degree teachers in the Toledo Public Schools.

Point number five, to improve the teaching profession, the role of the principal as instructional leader must be acknowledged in public education, and that person must be trained as a leader of the school site with a real sense of accountability. Got to have someone at the school site who is assuming the leadership. Teachers cannot do it on their own. Leadership training is critically important in the future of urban education.

As the last Secretary of Education, Ernest Boyer said, and President of the Carnegie Institute, "I've never seen a great school that did not have a great principal." They have a pivotal role to play improving the quality of teaching in our schools. And I really believe that principals take the lead in setting high expectations and being held accountable for results.

Point number six, to improve the teaching profession, parents must be involved. As we look at our schools and look at our communities, we know we must build greater parental involvement in our schools. Training our teachers and others to work successfully with our parents is imperative, because Elizabeth Schorr said in her book, "Within Our Reach", when the goal of the home and goals of the school are synonymous, that's where real learning takes place.

And as I close, I am always remembering my four children, and I am proud to say they all went through K to 12 in public education, but I remember my oldest son telling me, sitting down with me—and I am very proud of him, because of his graduation from medical school at the University of Wisconsin—and he sat down and queried me, and he said, "Dad, what do you think was the greatest thing you have ever done for me?" And I said, "Ron, probably, as I think back, maybe giving you the 1975 Chevy station wagon so you can take out your girlfriend." He said, "No, Dad, that was about four on the list." I said, "How about tuition?" He said, "No, Dad, that was second on the list."

My son Ron said, "Dad, the greatest thing you ever did for me was to send me to DeVilbiss High School because of the cultural diversity in that community. I learned what I needed to know about helping my patients today."

Public schools remain among the greatest American institutions we have. Equipping teachers to do their best in those schools must be our priority.

And I remember, Senator, you mentioned the Nation at Risk Report, in the early 1980s, there were nine reports that came out of the Federal Government at that time, State Governments, and one in particular was developed by the Education Commission of the States. It was called Action in Excellence. And Goal No. 8, Section 2, said very graphically and very specifically, "Never forget as a public school educator in the urban setting you must always better serve the underserved."

Thanks for the opportunity to speak with you today.

Senator DEWINE. Thank you very much.

[The prepared statement of Mr. Grant may be found in the appendix.]

Senator DEWINE. Dr. Howard.

Ms. HOWARD. Senator Jeffords, Senator DeWine, members of the panel, other panel members and guests. I am pleased to say that I started my teaching profession in the inner city schools of Columbus, OH. I taught at Fair Avenue Elementary School. We were the first school to receive one of the breakfast programs. I feel very honored to be teaching at a University where we prepare teachers to become involved in urban school education.

We graduated 19 elementary education majors yesterday at the commencement exercise, and many of them are going into classroom teaching. Others are continuing in their graduate programs of study, since they will have to receive master's degrees to continue.

There is much literature on teaching and learning in urban environments today, and in our teacher education program, we have designed a program that will encourage students to become learners. We use a motto: Teachers as learners, facilitators of learning in our program.

We are well aware of the fact that we must have a knowledge base, so our students begin learning about not only what they must teach to children, what is a curriculum that's printed, they must know what's going on in the world today, and they must know a lot about the children who are coming to the schools where they will teach, because much is to be learned from the learners.

We know that parental involvement is challenged, but part of our teachers' education program is to be concerned about the education of parents. We are well aware of the fact that many parents in urban areas are very concerned about their children's learning. They just don't know what is expected of them to teach after they have taught them their first educational experiences.

We are concerned about clarifying the concepts of classroom knowledge. We are very concerned about teaching methods. A strong emphasis is placed on integration and cooperative implementation in order to have effective teaching.

We are concerned about the composition of our recruitment. We believe that teachers who come into the teaching force should be concerned about themselves. First, they must know themselves. They must know what is going on in the world, and they must know a lot about the children they expect to guide.

Perspective teachers need to understand the make-up of their classroom composition, its increasing diversity and racial and ethic terms.

In class this quarter, Education 303, Multi-cultural Education, it was quite challenging to learn that in a class of 37 African American students, one bi-racial student, many of them could not talk about other cultures, only themselves, so it is interesting for all of us who know that we have a diverse population, and we must encourage teachers to be aware.

We have in our program, and we emphasize, that there is no one instructional approach that will adequately serve the learning needs of all students. Students learn differently and must be taught where they are when they are in the teachers' classrooms.

Fundamental to the content of instruction in teacher education is a knowledge and experience necessary to enable teachers to envision and implement a model of excellence to which all students are entitled.

Yesterday, our commencement speaker spoke about excellence, and we all talk about excellence on a daily basis, but sometimes we fail to stress that a person must be prepared. Preparation is very important to reach the level of excellence that we need in our classrooms.

We don't seem to demand as much from or want from our students who say they want to teach in the urban areas. Many times the least trained, the least knowledgeable teachers, are hired to teach in environments where the students need the most.

I have never been able to understand that. I can remember when I taught in Columbus, we were just beginning to integrate schools. All of the teachers who had seniority, who had excellent reputations of being great teachers, were removed from Fair Avenue School, from all of the inner city schools, and were sent to suburban schools because they were so wonderful, they were excellent teachers.

The teachers who came to Fair Avenue School to replace them, when I was there, were teachers who were from Ivy League schools who were in Columbus only because their husbands were attending law school or medical school, and they were not going to be there very long.

Linda Darlingham makes a statement about teachers who teach in urban areas, and she points out that many of them leave urban areas because they want to go where they don't have to work so hard. They want to go where they aren't going to have any problems with the children. They want to go where they are going to have excellent parental support.

We need those same teachers in the urban areas. And she says creative and experienced teachers that have the power, prestige and money they deserve as master teachers within the schools where they have made their reputation, where they enable both students and neophyte teachers to donate from their expertise, should be encouraged to stay. At the same time, master teachers can work with new teachers and on teaching teams and in other ways breaking down the isolation of the classroom.

We do have in our program emphasis on collaboration. We know that teachers cannot be as effective in isolation as they can when they have collaborated with other teachers, so teacher collaboration, making decisions in areas of curriculum, selection of materials and instructional grouping, are all parts of the teacher education program.

We believe that recruiting and effectively educating talented minority teachers will be an asset for teachers who will teach in urban areas.

When students leave Central State University, we expect our graduates to be able to communicate verbally and nonverbally in a variety of methods. They should be able to acquire and process information. They should be able to organize, comprehend and make practical use of a variety of materials, should be able to apply knowledge and new context, should be aware of scientific principles relating to health and larger environment, should be able to accept and work through ambiguity and diversity, while developing strong personal values, social skills and a sense of ethics. They will have completed a program of study and a discipline which has prepared them with an understanding of the concepts and principles of that discipline.

Today's society is looking for special types of people with special skills. It requires people who can absorb and process complex information, assess its importance, and select critical points. We believe that in our teacher education program, where we educate the majority of minority teachers certified in Ohio, we believe that these teachers will leave, and they will be informed, and they will continue to demand that their students become learners as they facilitate the learning of all students in their classrooms. Thank you.

Senator **DEWINE**. Thank you very much. Dr. Wingard.

Mr. **WINGARD**. Senator Jeffords, Senator DeWine, ladies and gentlemen. As you might imagine, I am happy to report that Senator DeWine was an exemplary history student years ago.

The **CHAIRMAN**. I am so pleased to hear that.

Senator **DEWINE**. However. [Laughter.]

Mr. **WINGARD**. He and his peers were willing students and helped me to become a better teacher. When I graduated from Miami University in 4 years, I had a teacher's certification in six fields. Subsequently, I have taught in each of those fields. I have taught primary students.

And let me just note that 6 year olds don't view me as different from them in any respect. I have always been pleased to note that they look up to everyone, so looking up to me is no different.

As a metaphor, I believe that my comments and the things that we discuss today are really describing the tip of an iceberg. There is an abundance of blame to go around for the condition of education today. There is a scarcity of commitment to do much about all of that.

Teacher training is a process, an array of professional experiences in understanding and appreciating learners and the learning process.

Teaching was and is a noble profession. The broad successes of citizens of the United States are directly related to the quality of education which they received in school. None of us became smart, competent or successful in isolation; rather, it was a wise counselling of several teachers who motivated, colleged, disciplined, and directed the potential which we display today.

These teachers received cooperation from and were appreciated by parents and community. The operation of the schools was protected by rules, regulations and law to ensure quality. Teachers were revered and considered as valid professionals in former years.

However, teachers training has faced a slippery slope of erosion since 1970, as other professions suddenly became more important throughout society. Social problems occupy the focus of government and the interest of communities, the bandaid philosophical response adopted by schools, community and government during the recent and turbulent decade. As social concerns and problems came into schools, the responsibilities, the nature of schooling and the quality of teaching declined.

We are now painfully aware that many decisions of the past were flawed, including the following: One, the dismantling and enclosure of neighborhood schools in response to the decision of Brown versus the Board of Education; two, the nightmare of bussing for desegregation; three, student and/or parent control of curriculum; four, nonprofessional control of school operations; five, certain expense center programs; six, school consolidations and redistricting; and, last, the overlays of bureaucracy for policy and standards throughout education.

This flashback of events and activities illustrate the major significance of decisions that we, the people, make or fail to make as it relates to education and teaching; thus, the consequences of our actions compound and confound our collective future.

The role of policy and planning is the essence of quality in matters affecting education. Federal leadership and support of teacher training is a prerequisite for quality in the new millennium.

The Northwest Ordinance of 1787 organized and signed the settlement of land beyond the original 13 colonies. Moral acts constituted this visionary process in the 1800s. The result was partnership of Federal Government with the States to establish land grants and formal colleges to prepare and train teachers; thus, the emphasis on higher education and teaching accrued from Congress.

The ultimate success of the venture is documented through the evolution and success of fee-sponsored institutions. The importance of education was clearly invoked through the Federal role of leadership and financial support. This is also a reminder that effective development is an orderly process.

Following this historical growth is the imperative need to sustain the quality of our educational system. From the Latin word "educator", meaning to lead out, has evolved the descent of education. Excellent teachers have the advantage of skill, training and motivation. The identification and selection of future candidates for the profession is a responsibility of professional educators, not government, or community evaluators.

A collaborative process between practicing teachers and teacher training institutions is the best arrangement for upgrading quality. Aspects of the former Future Teachers of America organizations in high schools across the Nation in the 1950s are needed today. Cooperative projects and programs between in-service and preservice teachers must be developed and supported at the local and State levels.

Standards of personality traits, conduct, attitudes, values, and eligibility for teacher licensure must be monitored by the profession. Instruments for assessment of teacher candidates must be balanced between academic and human characteristics. A continuous discussion of State reciprocity for teachers' credentials is warranted; likewise, a coordinated system of in-service program is needed to regularly and systematically upgrade the skills of practicing teachers.

The role of professional organizations in this regard should be directed by Government. Funding for schools is out of control. The typical taxpayer is offended by the current process of financing schools for a variety of reasons. A better system, a palatable system, must be invented to provide the necessary resources to support a democratic and quality educational program. A State and national conversation and debate is long overdue on the matter of representative and equitable taxation for education.

The business of teacher training is inexplicitly tied to this conversation and its outcomes. Health, safety, salaries, equipment, supplies, materials, and assistance in the work place are all issues which are dependent upon financial support.

The starting salary for first-year teachers in Ohio is similar to that for the first-year prison guards or city maintenance workers. The rhetorical question regarding importance and significance are more than perplexing.

One worthy concept for debate is that of abolishing the real estate tax in support of schools. Rental property, businesses, incorporations will pay the current real estate tax, but it would be directed to the State Treasury earmarked for expenditure toward safety and general welfare.

Residential and farm estates and farm real estate taxes for the support of schools will be abolished in favor of a higher State income tax. The increase would be determined by converting the present total revenue for schools from real estate taxation into a percentage to produce the necessary level of support for all schools for State distribution.

The advantage of fairness, adequacy and efficiency merit immediate consideration. Support of teacher training should also be calculated into this reform as a means of bolstering the importance of quality teaching. The quality of the teaching professional will require more of all of us than in the past. The reforms of the future must consider the consequences of our recent past and the impact of the social, political and economic environment of our alleged prosperity.

An atmosphere of appreciation of and respect for education must be instituted at the Federal and State levels. This process is best accomplished through strong and committed attention to the following: Schools are without adequate supervision at all levels. Competent ability and dedicated leadership must preside over all matters related to maintaining and reforming all aspects of education both in government and in the profession.

Two, financial support of education and teacher training is the lynch pin for quality and stability. Teacher salary must reach professional levels, and financing for education must be reconfigured to match expectation and demands.

Three, the teaching profession must gain professional status and must have the rights and responsibility to control and monitor the preparation, licenses and performance of teacher training.

Four, eligibility for entrance into teacher training and eventually licensing must be appropriately balanced between human characteristics and academic preparation.

Five, a coordinated system of preservice and in-service programming is essential for quality and reciprocity.

Six, reliance on real estate taxation for the support of education is passe and should be replaced by adding to the income tax.

Seven, intellectual capital is bankrupt in our communities; government leadership in policy planning and financial support are sorely needed.

Eight, educators must assume the burden of recapturing the honor and the image of yesteryear through renewed fervor and dedication to purpose.

And last, teaching is a relationship embedded in caring, in reciprocity and in commitment. It is an orderly process of restoring our system of education. Education is the answer to many of the other problems of which we are currently entangled.

I would say that the comments of Dr. Grant before me are excellent in terms of fitting with what I have said today.

My son is a warden at a State correctional institution here in the State of Ohio. He is a training teacher. He and I have conversations related to how we best can serve both of those constituencies. We both agree that it would be far better to focus our attention in education than to wait and be forced to focus our attention in the correctional institutions.

Thank you very much.

The CHAIRMAN. Thank you. It has been very helpful to have testimony from all of you. I am going to have some wild questions because we are dealing with problems that deal directly with our Nation's ability to meet the competition on the world scene and these problems are very much related to teaching. I just wonder whether anything we have talked about has really gone toward rectifying the situation.

We have discovered that back when the At Risk Report came out that we were not doing well in international competition, that the skills of our young people, especially in math and science, were not where they should be for us to be able to compete on the world scene.

We right now have 190,000 jobs out there that are going begging because the young people don't have the skills necessary to perform, so now we are raising our immigration standards to bring people to take those jobs. Those skills are taught in Europe and

Asia in the high school and ours are taught at the post secondary level.

There are structural differences as well, structural situations in our country and the other nations that we compete with are economically that very different. I question how our teachers are able to provide young people with the skills they need with the kind of problems we have in terms of the structure of our educational system; such as, 90-day vacation in the summer, compared with Europeans and Asians who take a total of just a month or 2 off and spread them out so their students don't have problems with retention. Our school days are shorter. Our homework assignments are much less.

I came back from 2 weeks in China. Amazingly, their kids graduate from high school at 13. Their math skills in the one international test they took were far higher than any other country. And people said, well, that's because, you know, they skew their test. Upon analysis it was found that they didn't.

How can you teachers, the teachers of the profession, be able to meet the demands out there if we don't change the school year?

Also, homework. The Europeans do an average of two to three hours a night in homework. Our kids do very little. The only thing they are good at is watching television. We beat Europeans and Asians three to one on that.

So is it fair to ask our teachers to say you have got to compete if we don't make some changes to ensure that they don't have these handicaps of social promotions and others which plague us?

In literature exams of tests were given to high school graduates, it was found that 50 percent of them were functionally illiterate, and those were basically those that were socially promoted because they didn't read, so we just push them on.

How can we expect improvement if we don't change these problems or look seriously at what we are doing to accommodate these problems?

That's a tough one, I know.

Mr. GRANT. Do you want us to respond?

The CHAIRMAN. Sure.

Mr. GRANT. I won't say that's a loaded question, but it comes very close, I think. I mean, it encumbers a lot of areas, and I am not sure where to start with the fundamental changes that need to take place, but I think we are beginning on that track, and we have begun on that track several years ago.

Toledo Public Schools, we are guilty. We are guilty. We have the shortest school day in the State of Ohio. Our elementary school children are in school for five hours and 15 minutes. That's a result of the negotiated agreement with the Toledo Federation of Teachers. It is too short a school day. No question about that. But to change that part of it and that aspect of it, we need to do that at the bargaining table, because, you see, public schools have entered that political arena many years ago, as you are well aware.

To change that, we have got to change the structure of our bargaining agreement with the Federation of Teachers in that district. But look at the schools that you presently have and the experience in California in two districts, Watsonville and San Francisco schools, where the schools were mandated in California for a while, but then the mandates have been lifted, and I didn't see any significant differences in terms of increased proficiency academically because of length of the school year; rather, what I would say, is more emphasis during the day, even five hours and fifteen minutes, in the areas of reading and math. Reading and math.

Seems to me that, again, may be over simplistic, but we need to make double the time we spend in those two areas. We need to train our teachers to be teachers of reading. Every single teacher should be a teacher of reading. Every single teacher should be a teacher of math.

We need to focus on those two areas. That doesn't mean physical education and Fine Arts isn't important. But in urban districts like Toledo, OH, where the poverty level often reaches 85 to 90 percent of the student population in certain areas of the city, our children come to school, two, 3 years behind other children in suburban or in rural areas. And you have to understand that they come to school that far behind, and that's a distinct disadvantage. So realizing that, spending more time in major disciplines is the preventive approach.

Second of all, making sure that children are exposed to school before age five in terms of good, solid early childhood education programs and that parents are part of that process and that parents are required to be part of that process. And linking the home and the school is Part B of the preventive approach and making sure that teachers are trained on the job after college, after the university, and while they are at the university, making sure that the focus is on the urban setting and understanding, now, all of the variables that impact children is something that we're all about right now.

It started with the reports in 1981 to 1984 in the Reagan White House, and now it is finally coming to closure, or at least in the State of Ohio.

Well, the State of Ohio, as I believe, has taken the right approach in terms of proficiency testing and making the communities aware of the differences and the fact that we are behind.

You know, years ago, Senators, when I was a teacher in Toledo Public Schools in the early' 60s, I didn't know how well my children did compared to other children in that part of the city or the communities, but now we know, and that sense of accountability is being hammered home by the State Legislature and by communities, and we are ready to accept that challenge.

So we are much more focused. We have many more people involved. These partnerships are ongoing, and I think you are going to see some very significant results in the near future.

And I will close by saying that in Toledo Public Schools, in the last 2 years, our writing scores, on average, taking ninth grade proficiency tests, have gone from a passage rate of 48 percent to a passage rate, 2 weeks ago, of 86 percent district wide.

Our reading scores have gone from a passage rate of about 34 percent to a district wide passage rate of almost 62 percent. Citizenship, similar increase.

Where we are having problems is in math and science, and that's going to be the focus of our school district along the Fourth Grade Reading Guarantee in the State of Ohio where all children have to learn to read and pass proficiency tests by the year 2001. And those kinds of standards are coming out in the State Legislature in Ohio, are really going to be the proving ground for us, because we know what we have to do now. And it's up to us, it is up to the leadership, the school boards, the superintendents, the teachers, the teachers unions, the administrators, to make that happen, and we have more confidence and more expertise than I think we have ever had before to make that happen.

The CHAIRMAN. Thank you. I commend your governor, too. I know he has been very, very active trying to improve things.

The question that haunts me is how we can expect to overcome some of these structural problems we have.

I think you are aware that the NEA has suddenly changed its attitude in bargaining and recognizes that they are part of the problem and they have to work on changes to help the kids, as well as shorter workdays, so I hope that's a good sign.

I know Bob Chase, who is a teacher in Maine, got a letter. He was shocked to find out what the results of our kids were in math, and that was a good sign. I hope that they will come to the bargaining table and hope to improve education. Yes, sir?

Mr. WINGARD. First thing I would like to say in response to your comments is that the Nation At Risk Report was a hoax, in my opinion, and I am joined by several others in that respect.

It was not documented properly. It was a listing of assertions without basis. That may sound defensive, and that's the point I want to speak to. We need to move past defensiveness.

As I said in my comments, there is enough blame to go around. We should all agree that this is not an athletic contest where we play offense and play defense. This is a situation whereby we need to all focus on the same goal and find a way to do what we want to do together in a way that we are not blaming and that kind of thing.

This means that we have to focus our debate, our conversations, on the goal that we have for improving education and improving teacher training.

The year-around school concept is something that we should employ throughout this country. It makes sense. It is utilization of facilities. It is utilization of talent. Students don't forget what they have learned the week before. We should maximize the opportunities to do a better job of education.

There are many ways in which we can work together at the State level, the National level, to achieve our goals in education. We inherited many of the problems that we have. One of the problems which serves as a barrier for teachers is the fact that they are expected to do their jobs with their hands tied. They don't have the opportunities to do what they are expected to do and what they are charged to do. Communities can't do what they want to do because there are barriers related to getting that job done.

So rather than describing the problems, we need to invent the solutions, and I think we have to do that together.

The CHAIRMAN. Thank you.

Mr. ROWEDDER. My peers would say I would be remiss if I didn't respond to your queries as well.

If I focus on three major areas they would be, first of all, alignment. We as a country must clarify who it is we are going to measure against and what it is we are going to measure and then schools ought to go in gear and teach those ideas, skills and qualities necessary to be successful in those measurements.

So the first issue is alignment, and it can't be simply, Senator, by books, but rather specifically what it is we are going to measure. Every teacher ought to be held responsible for knowing what their measures are once they have been determined.

The whole standards movement would apply, have concern with the standards movement, however, and that is that standards become measuring points, benchmarks, scales, with little attention given to expectations for success.

My great fear is that we will have elementary schools across the country building new parking lots to keep the children in places that couldn't meet standards. We must put high expectations for success along with that, so the idea of assignment and the position of standards, I think, is important.

The second one is the one you alluded to, and that's time. There are things that teachers can do in the classroom today to improve the quality of time, how they use time right now. There are things that schools can do, buildings themselves, changes when the bells ring, how time is assigned, as was just mentioned. Amount of time spent on reading and amount of time on math.

And then third and fourth is the idea of year-around school. We ought to do it tomorrow. If we ever want to tip the playing field in favor of children in America, we must make all schools year around tomorrow.

So alignment, time, and the third and final one is the one that we are really here about, and that's teaching, effectiveness of teaching.

Again, all across America, in most every school building in America, there are teachers who are more effective than others. We need to take the things that we already know that work and promulgate them throughout all of our classrooms and all of our schools across America.

The CHAIRMAN. Thank you. Dr. Howard.

Ms. HOWARD. I certainly agree with much that the three persons before me said; however, I am concerned about one thing, that is, teachers reading.

In the early 1960s, the Commission of Education said that by the end of this year, all students will be reading at grade level. Every goal that I have listened to from that time has made the same statement; therefore, I think that what we need to do is to be concerned about teachers knowing how to read.

If every teacher is a teacher of reading, then every teacher should be able to teach other people's children how to read.

Literacy is thrown around. That word is thrown around like a piece of cotton. What do we mean by literacy? Testing, proficiency testing. Every time we have proficiency testing, we see this in the paper, we never see anything about teachers reading or about children reading or about children using what they say they have learned as measured on the testing.

I believe that we should have a way to make sure that we obtain good working conditions for teachers, that we have strong supportive leadership so that those teachers can become teachers of reading and readers themselves. And I believe that if we have high levels of staff collegiality where teachers can support teachers—It is unfortunate, but teachers will pass one teacher's room and will find critical things to say that are negative but will not feel comfortable going in to assist a the teacher. When we have collegiality among staff and when teachers have some influence on decision making, I believe that all teachers will understand what these standards are and will begin to adhere to them.

The CHAIRMAN. Thank you. I could keep going all day. You are a great panel, but I have to get back to Washington at some point.

Senator DEWINE. Thank you, Chairman Jeffords. Thank you very much.

Dr. Rowedder, I wonder if you could talk to us a little bit about the Mayerson Academy. You talked about it in your testimony, but what is different about what you are doing than what we normally do in regard to continuing teacher education?

You have mentioned that the Mayerson Academy has really not so far been replicated; is that correct?

Mr. ROWEDDER. That's correct.

Senator DEWINE. To someone who will say what you are doing is different, why should a community spend a significant amount of money, in your case, it is the business community, education community, what do you all do different than normal, we would normally see in a school system? Why should we worry about replicating Mayerson Academy and in the time you have been in existence, how do you measure your success, or lack of success?

Mr. ROWEDDER. I will answer that in reverse order. We measure success in three ways, Senator. No. 1, point of application. What do our customers say after having been a part of the program? And we provide a rating sheet for every teacher and every principal who steps inside of the doors at the end of every course we teach. And our average rating is between 4.6 and 4.7 on a scale of one to five. And we call that point of application.

Senator DEWINE. Excuse me. This is teachers who then become the student?

Mr. ROWEDDER. Yes. We call teachers our customers.

Senator DEWINE. Your customer is rating how well you are doing?

Mr. ROWEDDER. Yes. The programs we provide.

The second and more important and vital program or measurement is what we call point of application, and that is through your customers, do the teachers change their behavior when they go back to the building?

And we presently employ the University of Cincinnati and Miami to do a research project that looks at some of the work that we do on a pick and choose basis. Do teachers actually do the things they are learning in the classrooms at the Academy? So we call that the point of application.

And then finally——

Senator DEWINE. You found what?

Mr. **ROWEDDER**. What we are finding, interestingly, is the teachers who come to the Academy who perceive that they are voluntarily changing their behavior, when they go back, if they perceive that they were there because they were required to attend, chances are very little different things happening back in the building are slim. So if they perceive that they are there voluntarily, they are, in fact, changing their behavior.

Senator **DEWINE**. You had a third item.

Mr. **ROWEDDER**. Third item is point of results, is it making a difference for the boys and girls in terms of the outcomes that the Board of Education chooses to measure? And it is really too early to tell yet; however, we are seeing some break-through performances.

it would be terrible for me to stand up here and say the Mayerson Academy ought to take credit for increases in student achievement or improvement of attendance. We simply can applaud those, but we have now some break-through examples, where their entire staff has been part of the training, raised their proficiency tests for eighth graders from 16 percent passing to 41 percent passing in just this past year.

So we have break-through examples like that, so the results are going to come through.

Senator **DEWINE**. That testimony is very, very helpful. I had a chance, as you know, when I was Lieutenant Governor, to spend some time in Cincinnati focusing on what you were doing, what the school system was doing, and also taking a look at Mayerson Academy, so I think I have a pretty good understanding of what you do, but for the average person who is not familiar with Mayerson, explain, if I walked into there, what's different? I mean, I am not sure the average person so far, based on your testimony, who hasn't been there, would understand what are you all doing that's different?

I understand what you are saying about the results, but what makes you unique?

Mr. **ROWEDDER**. One of the uniqueness would probably be customer focus, that we treat teachers as customers and not as captives.

There is no one in there taking roll; that our success is determined by our ability to get them to walk inside of the doors and to come back time and time again without requiring them, because the requirement, for some reason, Senator, seems to taint the experience a little bit, so we treat teachers as customers.

Senator **DEWINE**. What else?

Mr. **ROWEDDER**. We build our program based upon our customers' needs. We see each building after they have identified their vision and their goals for the next few years, to share with us a program of work that they would buy from us, to which they would come if we would put it in place, so our customers drive our programming.

These are major and significant, so we sit down and talk about their vision, their mission, and their development needs, and we deliver those for them.

Senator **DEWINE**. You talked in your prepared testimony about what I will refer to as sort of after care or after the fact, and one thing from my experience has been, in dealing with juvenile delinquents or you deal with corrections, or you deal with drug addiction or whatever the issue is, the effectiveness of "program" usually depends to a great extent on what happened after that person leaves the normal part of the program. You alluded to that. You talked about facilitation, consulting. What does that mean, though, in a practical matter?

I am a teacher. I go in. I spend X number of hours with you all. I want to improve my teaching. I am back in the classroom. What do I get from you? What contact do I have from you beyond that?

Mr. **ROWEDDER**. One of the things that you will have is the trainer that was in the classroom that you attended would also make visits to the building, stop by and see how it is going and provide some suggestions and some support.

Second is that we are now putting in place the facilitation provisions where every building that gets involved in the building initiative would have two facilitators we will work with on a continued basis to make sure that that support and facilitation is there.

And third, and finally, the whole idea of being able, for a phone call, for a tele-conference, for an Internet hookup or web hookup, for a guidance consultation, etc, that would be a component as well.

Senator **DEWINE**. If I could summarize, let me try to summarize, you correct me if I am incorrect, one of the things that makes the Mayerson Academy different is that the community of Cincinnati has made a commitment to quality teaching; in other words, this has been a financial commitment, this has been an emotional commitment. This has been a time commitment.

The community of Cincinnati has said teaching is important, teacher training is important, teacher retraining is important, we want to invest and reinvest in our teachers?

Mr. **ROWEDDER**. I will add another piece to it, Senator. They did it outside of the school setting, so that once in place, that this opportunity for teachers would never be held hostage to board elections or to budget cuts, that it, in fact, because it stands independently of the school system, it will stand, in the case of Cincinnati, it has withstood a $37 million budget reduction, and oftentimes, in our experience, in business, staff development is one of the first things to go when times get tough, so that would be another important uniqueness of the Academy.

Senator **DEWINE**. Doctor, thank you very much. You are very, very helpful.

Dr. Howard, you made a statement which I think makes—I tried to write it down. You said that Central State graduates the majority of minority students who are certified to teach in the State of Ohio; is that correct?

Ms. **HOWARD**. Minority teachers who are certified to teach.

Senator **DEWINE**. You have over half?

Ms. **HOWARD**. Right.

Senator **DEWINE**. That comes out of basically a relatively small institution?

Ms. **HOWARD**. Yes.

Senator **DEWINE**. Let me, if I could, cite what Dr. Grant said. He talked about the need for teachers in urban areas. He also cited the fact that up until the last year or so, I believe, Dr. Grant, the Toledo schools and Toledo School system, which is a school system that has, what, over half minority?

Mr. **GRANT**. Yes.

Senator **DEWINE**. You have seen the number of minority teachers drop year after year up until, what, the last couple of years?

Mr. **GRANT**. Right. It has dropped about seven percent over the past 4 years, four to 6 years.

Senator **DEWINE**. You are getting ready to turn that around, but we have seen that drop. I have had the opportunity to talk on the phone several times and in person to Central State's new president, Dr. Garland, and he has expressed to me, Dr. Howard, a commitment to see and desire to see Central State really become even more than it is today, a premiere educator of young people who go into school districts, particularly in the urban setting, and this is a predominantly historically African American institution, there seems to be a tremendous opportunity for Central State to expand its role and expand its mission and to accomplish a tremendous amount of good, not just to students from Central State, but, frankly, for the entire State and beyond the State of Ohio.

And I wonder if you could talk about your vision in someone who is intimately involved in training teachers, your vision for Central State, and I would also invite any other panelist who wants to comment, also, invite Dr. Wingard to comment because of his former position at Central State?

Ms. **HOWARD**. My vision is that we would become stable in the College of Education. We need an Academic Dean, and with that Dean, we will begin to recruit students.

Students who come into education now are recruited by the University. When Dean Wingard was the Dean of the College of Education, we had a process where we went to high schools and recruited students. Unfortunately, we don't do that any more, but that's on the agenda to begin again.

We knew when students were recruited by the College of Education faculty persons because we had a number of applications when it came to the Admission Office.

We also need to recruit faculty. A couple of years ago, we were reduced. We lost a Dean. We lost faculty. And we need help in that area. But as far as the students now who graduate and go out, they were recruited by all school districts.

The Superintendent of Whitehall came to our school and recruited a student, signed her the next day after he telephoned me, because our students are in such demand, we don't have enough students to go to urban areas to teach because suburban districts come in to recruit them. They need them, also.

Senator **DEWINE**. That's good as well.

Ms. **HOWARD**. That's good because they are needed, exactly.

Senator **DEWINE**. They are needed in every school district in the State of Ohio.

Ms. **HOWARD**. Every school district needs to have some diversity, and this sometimes is the only diverse cultured person in some of the suburban schools.

Senator **DEWINE**. I did not mean to imply we are talking about a limited number of schools. We are talking about every school district in the State, and I believe they are benefited by an enhanced program at Central State. And we are talking about investment to get down to basics. I am talking about investment of taxpayers' dollars and something that would dramatically improve the quality of high school and primary education in the State.

An investment in this program at Central State, it seems to me, would be one of the easiest things to do, one of the most cost effective things to do.

Ms. **HOWARD**. I agree. The President is even discussing the erection of a College of Education building. I don't know where that——

Senator **DEWINE**. He and I talked about that.

Ms. **HOWARD**. But what is a priority is a Dean in the College of Education and the recruitment of faculty and students.

I think that our program is fairly solid. We have just committed the new program to the State coming into effect, K, three, four, eight and secondary, so we are on target there. It is recruitment of faculty and students.

Senator **DEWINE**. Dr. Wingard.

Mr. **WINGARD**. I applaud the vision that you described. I think that makes an awful lot of sense, and I certainly hope that progress will be made in that direction.

As you may well know, there is a lot of competition among I institutions preparing teachers and colleges and universities in the State. That's good, and it is also bad.

But as for teacher education, we have a system whereby we are competing for the same promising candidates to admit to teacher education, and that's part of the tip of the iceberg I alluded to.

It is really difficult to attract those persons with the potential to serve in the profession, so there is some problems to be ironed out.

We all know that the demographics throughout this country are changing rapidly, and we have to prepare for that; but I think if we all put our mind together, we can identify persons that can help us to prepare the kinds of teachers that we need to serve in all of the classrooms.

And, of course, in teacher education, we don't make a distinction about the kind of children that we are teaching, whether they be urban, suburban, big, small, and otherwise, because a good teacher is a good teacher. So I don't think we should overly focus on the kinds of teachers that we are preparing. We only want the best kind. Those are the good ones.

Senator **DEWINE**. Let me follow up with that—and I'm not going to let you off that easy, Doctor. Thank you very much, and you were very kind enough to mention that I was a good American history student. You were also kind enough to mention—not to mention my grade in science, as I took science from you as well. [Laughter.] Just shows the limits, there is some limits to good teaching, that you have to deal with the student as well.

You made an interesting comment. It follows, really, what Dr. Grant has said. You talked about nurturing and developing teachers among our students, even in the high school. Dr. Grant talked about a program that they have in Toledo to do that. You talked about Future Teachers of America, which we all familiar with a number of years ago.

Could you elaborate on that and how you think that kind of mentoring in schools is important to get people excited and interested in teaching, because ultimately we can talk about incentives, we can do all of these different things, but ultimately someone has to want to do it, someone has to want to go out and teach. And that type of inspiration in most things in life comes from somebody else who you look at and you like and you think, "Gee, I want to be like them."

I think in education it is particularly true.

Mr. WINGARD. Indeed. I think the motivation for becoming a teacher really starts during one's elementary and secondary school experience. That would be the prime time for practicing teachers to participate in the identification of potential teachers.

So the Future Teachers of American organization was an excellent way to identify those persons and then to recommend them, encourage them, support them, to matriculate at institutions to prepare to become teachers. I think that's an excellent way for practicing teachers on the firing lines, if you will, to interact and to cooperate with the College of Education that prepares teachers and assisting in that process.

There are many, many ways in which this can be accomplished and would be to the benefit of all of us. I certainly would encourage efforts in that regard because most of the teachers that we regard as excellent teachers were identified early, and it was perhaps the first choice as a profession as opposed to a second or third choice. Thank you.

Senator DEWINE. If I can have one final question. You testified that you had training in, what, six different areas?

Mr. WINGARD. Yes.

Senator DEWINE. Frankly, it is an experience I had, but it was an experience a number of other people who attended Bryan High School also had. You had a reputation—this is absolutely true—you will teach anything. And I think that goes to the point that, yes, we want teachers who have a good academic background, but that certainly is not enough. There is something to be said about someone who can just teach, someone who has learned to teach.

What I won't ask you is the big question: What makes a good teacher? We would be here all day. But what is important for us to look at as a society? I don't mean Senators. I mean more as a society, what's unique, what do we need to emphasize?

Mr. WINGARD. I believe that there is no substitute for a knowledge base. A good teacher knows her subject, understands how to teach, understands learners. The knowledge base is important.

Equally as important is the human characteristic of the teacher. Excellent teachers are good people. They are caring people. They are people that have good personal qualities and characteristics.

And third, I believe the motivation is important. Good teachers want to teach because, someone said, it is not the motivation of salary, money, or anything else, but the joy of teaching and realizing that he or she is helping someone to achieve.

So those three characteristics, I think, are primary, and those are the ones we should focus on.

Last, I would say since the media projects itself as important and the media tends to portray technology, computer information service and other fields as important and fails to portray teaching as important, then I ask the rhetorical question, "What would you expect young people to choose as a career when faced with that choice?" Thank you.

Senator DEWINE. Thank you very much. Senator Jeffords and I want to thank our panel. We could go on and on, but Senator Jeffords and I both have to get back to Washington. We appreciate the generosity of your time, and we think it has been very, very helpful. We appreciate it very much, and we thank you.

We invite our second panel to begin to come up.

Our first witness is Sharon Draper. Sharon has received many awards during her illustrious teaching career, including 1997 National Teacher Award. She is an accomplished writer, lives in Cincinnati. She is presently lending her expertise to the Mayerson Academy of Cincinnati.

Our second witness is Dr. Arlene Mitchell. Dr. Mitchell is Associate Dean for Academic Affairs, University of Cincinnati. She will describe the importance of alternative certification.

Our third witness is Anna Marie Vaughn. She is Assistant Superintendent of the Columbiana County Educational Service Center. Columbiana County Educational Service Center is an educational center with the responsibility of providing specialized educational services to 11 school districts in Columbiana County.

Our fourth witness is Dr. Lepley, who is Professor of Education and Chair-Elect of the School of Education at the University of Rio Grande. Dr. Lepley will describe her University's initiatives to look to local elementary schools and offer professional development and introduce establishment of the Induction Year program to entry-level teachers.

The last witness will be Dr. David Ball. Dr. Ball is Associate Professor of Chemistry at Cleveland State University. He will speak on behalf of the efforts of the American Chemical Society to ensure that we have well trained and knowledgeable math and science teachers in our elementary and secondary schools.

Start with Sharon Draper. Thank you very much for joining us.

STATEMENTS OF SHARON DRAPER, 1997 NATIONAL TEACHER OF THE YEAR, MAYERSON ACADEMY, CINCINNATI, OH; ARLENE MITCHELL, ASSOCIATE DEAN FOR ACADEMIC AFFAIRS, UNIVERSITY OF CINCINNATI, CINCINNATI, OH; ANNA MARIE VAUGHN, ASSISTANT SUPERINTENDENT, CO-DIRECTOR, FAR EAST REGIONAL PROFESSIONAL DEVELOPMENT CENTER, COLUMBIANA COUNTY EDUCATIONAL SERVICE CENTER, LISBON, OH; CHARMAINE LEPLEY, PROFESSOR OF EDUCATION, CHAIR-ELECT OF THE SCHOOL OF EDUCATION, UNIVERSITY OF RIO GRANDE, RIO GRANDE, OH; AND DAVID BALL, ASSOCIATE PROFESSOR OF CHEMISTRY, CLEVELAND STATE UNIVERSITY, CLEVELAND, OH

Ms. DRAPER. Thank you, Senator Jeffords and DeWine and guests, and whoever else is still here.

As 1997 National Teacher of the Year, I was granted an unusual opportunity to be able to travel all over the country, to visit states all over the country, to visit abroad, to go to other countries and to see excellence in education.

And the things that impressed me most is that there is excellence in this country. There is huge amounts. There are huge amounts of excellence that exist in this country. There are already excellent teachers. There are excellent programs. There are excellent schools. There are excellent opportunities available for children in this country. And that is what impressed me most.

As a sideline, talking about Europe and countries, just an answer to one of your questions that I couldn't answer while I was sitting there, was comparing American education to European education.

We educate everybody, and they don't. There is a whole level of children that do not pass those initial tests, and they are not educated, and they are not included in those test scores, and they are not included in many of those kids, because the people that I talked to—we could talk about that later—but many of the people that I talked to, they have certain testing levels, and they—the children that go on to certain levels of education are the ones that are included in those test scores, and many of the other children are not. But that was just a sideline.

But basically, what I saw is excellence, and people who say that the American education system is terrible, that the American education system does not work, needs to know that there is excellence out there.

So what we need to do is to figure out how we can incorporate those examples of excellence that exist and make it nationwide, so that more Americans and more teachers can benefit from that opportunity.

The best examples of excellence include specific characteristics. One of them is collaboration. Collaboration between teachers and students and parents. Collaboration between the business community, the school community, and university community. Programs where they work together.

We do not live in a society in isolation. Our society, there is an interlocking system in all levels of our society, so we can't educate our children in isolation. So the programs that seem to work best are the programs that involve the community, that involve the business, that involve the universities in that town that affects those children. Those are the kinds of programs that seem to work best.

You wanted specific examples as to how to do what we're talking about today. That's one specific example. Don't try to do it alone. Government can't say, "This is what we are going to do in isolation." We need examples from all aspects of society to work together to educate the children.

So those kinds of programs are the programs that I saw that I was most impressed with where people work together. The places where teachers were forced to work in isolation by themselves with no help from their administration or from anybody else in the city or the town or the community struggled.

Those teachers that had opportunities to work with other levels of society and got support from other levels of society were the programs that were the most successful.

The second thing that I have seen that seemed to bring forth excellence in the schools were opportunities for professional development for the teachers, for the staff, for the people within the program.

We have talked at length about the Mayerson Academy and the professional development opportunities that it offers. There are other cities that have things not on the level that we have at Mayerson Academy but have programs where teachers can actually do professional development.

A lot of this professional development is looked upon as something that is assigned. OK. Wednesday will be professional development day. We will all discuss discipline, then we will all go back to class on Thursday and nothing happens.

So professional development must, first of all, be professional and, second, must aid in development. And the best professional development programs are those programs that are initiated by and implemented by the teachers, by the teachers that are going to be influenced in that.

So programs that include professional development programs, that include opportunities for teachers to learn, to grow, to work together, to develop. In many schools, teachers don't even see other schools.

In Texas, I went to a school. There are 400 teachers in the school. They graduated 8,000 kids at the end of the year. There were teachers who did not know—Not 8,000. 800, I think. No, that's the graduating class. It had almost 1,000 kids in that graduating class. And there were teachers who worked on the first floor who did not know teachers who worked on the second floor, who may have been teaching the same thing that they were teaching, because within a school day, there is no time for professional development.

If we have five-and-a-half hours of classroom day just for instruction, there is no time for us to sit together and say, "Well, let's see what's going to happen." Time must be built into the school day and after the school day for professional development opportunities.

The professional development has to be meaningful. It has to be useful. It has to make sense. It has to do something to change the behavior of the teacher, therefore, to benefit the child that's in the classroom.

Another thing about the Mayerson Academy that you asked about, you asked Senator DeWine, what is it that makes it different.

One thing that Mayerson offers to teachers are specifics, the specificity. That's one of the things I used to stress to my students all of the time is this idea of specificity. Teachers are given specifics, not generalities.

OK. Here is a wonderful philosophy of education that may or may not work. Here is something you can use in your classroom tomorrow. Do this. Try this. If that doesn't work, try that. Here are a page full, a book full, a computer screen full of specific examples. That makes a difference.

Generalities are wonderful, but we don't work in a world of generalities. We work in a world of very specific individual problems. Every day a teacher is confronted with thousands and thousands of individual and specific problems. They need specific examples.

I once talked to a young student teacher. She was just beginning her student teaching, and she said, "I don't know what to do about this student." And I said, "What's the problem?" And she said, "He barks." I said, "He barks?" She said, "Yes. I don't know what to do. I ask him a question, and he barks at me. I have looked in every single educational book that I have, and there is no chapter on children that bark."

So I said, "Bark back. The next time he asks to go to the bathroom, bark back." She said, "I will try it." She did. He stopped. He needed attention. He needed something.

That kind of specific information is given in the best kind of professional development. A chapter on disruptive children is not going to tell her what to do about the little boy in the second row that barks. So that kind of thing, specificity.

Another example of teacher initiated professional development activities that work is the National Board for Professional Teaching Standards. Teachers in Ohio have been very, very well supported by the National for their National Board initiatives. The National Board is national, not Federal. It encompasses every major educational organization, all of the initials, the NEA, AFT, and National School Boards Association. All of those work together and come together for a common goal, to make decisions.

It is teacher initiated. It is teacher originated. It is teacher monitored. And at the end of this very, very complicated certification process, a teacher is certified as a professional, just like your doctor or your lawyer is certified as a professional.

You are an architect. You go to a board-certified architect because you think he might be a little bit better than the other guy who is not board certified. We now have board-certified teachers. In Ohio, we have over 100 board-certified teachers. And that's something that we can be very proud of.

And this we talked earlier, one of the other witnesses talked about being able to move teacher licensure and certification from State to State.

The National Board is a way of doing that, so that a teacher who teaches in North Carolina can move to Ohio and can teach in Ohio because this teacher from North Carolina is board-certified, and that is a standard of excellence that has been recognized.

And teachers can start to be recognized as professionals because teachers are professionals. Many teachers don't consider themselves to be professionals, and the community certainly doesn't consider us to be professionals, but professional development is just that, where teachers are developed to think as professionals and to be treated as and respected as professionals, because their knowledge base and their ability in the classroom is of a professional quality.

So that's another specific way to get from Point A where we are starting to Point B, where we want to be, where we have excellent teachers in all classrooms.

And I agree what you said, Senator, about having warm bodies in the classrooms is not sufficient, just to say we have millions and millions of classroom teachers. We need qualified, excellent teachers. We need teachers that can engage the mind of a child as well as a television screen can.

We live in a video age where kids are used to be entertained, and I am not saying we have to entertain them, but the first graders that come to the classroom are excited about education, excited about learning. They want to learn to read. They want to learn to write. They are very excited.

We meet those same kids in the eighth grade, and they have lost the excitement. We need teachers that can keep their excitement and keep them engaged in the education and knowledge process all of the way through, through puberty, through all of the trials and trying times of adolescence, all of the way through high school. If we can keep their excitement about learning and about education, we don't have to worry about losing them or them not passing proficiency tests, because we would have captured their knowledge, their innate need to learn. They do want to learn. It just takes a while to figure out how to do that.

The third thing that I think we need to focus on, and this has also been touched on before, is teacher training and retraining, beginning teacher, training initial teachers.

First of all, we have to identify people who can be and will be good teachers. The best and brightest of our students are not encouraged to go into education. As a matter of fact, some of my best students have had people tell them, "You want to be a teacher? You have got such good grades and you are so bright, why do you want to just be a teacher?" Whereas, that person wouldn't be where they are, the person advising them would not be in that position if it had not been for a teacher, but our best students are counselled not to go into education by counselors, by well-meaning friends, by people who say, "Why waste yourself in education? You can make a lot of money in business or in some other profession. Why be a teacher?"

So what we need to do is identify these young people and say, "Yes, you need to be a teacher", and get the best and brightest of our students to go into education.

In order to do that, we must make it worth their while to do so. I think the idea that Toledo has, where the students who have reached a certain level are given tuition free payments to go to college to become educators, so they can come back into the classroom and return what they got, where teachers, when they get there, when they arrive in the classroom, are allowed to be able to benefit financially from what they are doing.

I have met young teachers who qualified for food stamps under Federal poverty guidelines. These are young teachers who are married and have a family and have two or three children, who qualify for food stamps because they are the sole supporter of a family, and they are teachers. And that's criminal.

Teachers should be paid commensurate with what they do for society. And if you want the best of our young people to go into education, we have to improve teacher salaries, and we have to make it worth their while so the best and brightest will go into education.

We can't keep saying, "Oh, come on over and be a teacher." We have to say, "Be a teacher, and this is why: Yes, you will make a difference. Yes, you will do something good for the rest of the world, but, yes, we are going to pay you for doing that because that's the way the world works."

We need to also train new teachers. First year teachers, beginning teachers, preservice teachers, they had more than 6 weeks in a classroom. I did my student teaching in 6 weeks, now I can be a teacher.

We have programs for teachers in Cincinnati with teacher interns where the teacher stays with that class from September to June. There is a big difference between kids that come to school in September and leave in June, and 6 weeks isn't going to capture it. So we need to improve and lengthen the teacher training program, again, making it professional, where the teacher is paid as a professional very early on, so that the teachers that come into the classroom are well trained.

I have talked to students in universities who got the best grades, were the best students, were highly motivated, come from very strong supportive families, and they are getting ready to go and teach in urban areas.

And I said to them once, "Do you remember those students that failed English and failed math and got into fights after lunch, do you remember those kids in your school?" "Oh, yes, we remember them, but we didn't talk much to them." I said, "That's who you are going to teach."

We need to prepare the teachers, because they are not going to let you teach kids like you, because there are teachers who have been there for years and years and years who want to teach kids like you are. You are going to be given the kids who are difficult, the kids who are challenged. So we need to prepare these young teachers so that they can do that.

And when they get there, our first-year teachers, we need to teach them so they can—that we need to support them. We need to have programs. We need to have classes. We need to have mentors built in so that every beginning teacher has someone to talk to and say, "I don't know what to do in this situation", or with this kid, or, for instance, with the child that barks.

We need somebody to mentor and take care of these teachers not just the first year but the second year and maybe even the third year, if they need it to support them and to help them and to hold their hand and, again, to give them specifics of what will work in a situation.

Schools need to learn not to give the most difficult teaching situations to the brand-new teachers. It's a tradition in education, the first-year teachers get the most difficult classes, the most challenged students, the most difficult teaching load, no classroom at all, five or six different preparations, and they say, "OK, you are a teacher, teach"; whereas, teachers that have been teaching for 20 years, have one classroom preparation of advanced placement students, and they say, "I don't see how these young teachers aren't making it."

Senator DEWINE. Senator Jeffords has to get a plane. Your testimony is excellent. I just want to make sure he has the benefit of many of the witnesses, and we can get on, so if you could conclude, we would appreciate it, and we will have a chance for questions.

Ms. DRAPER. I'm sorry. Anyway, that was basically all I was going to say. We must support new teachers.

And the last thing, I guess, is the idea of praise and recognition, because if we don't give teachers the recognition they deserve—I *have met teachers that have been teaching for 25 years* and have never received even a piece of paper that says they are doing a good job. They come every day. They have good students. We need to give more praise and more recognition to outstanding schools and outstanding teachers, outstanding programs, and teachers are more likely to continue to do well because of that. So I will stop there.

Senator DEWINE. Thank you very much.

[The prepared statement of Ms. Draper may be found in the appendix.]

The CHAIRMAN. I challenge you, and I wish you would check it out, because the head of my teaching union made the same statement, they just test the best, and we test all of our kids. Check it out with the system. And I also checked with the China study, and that's not accurate. They test all of their kids, just like we test all of our kids.

Ms. DRAPER. Moscow, they didn't.

Senator DEWINE. Thank you very much.

The CHAIRMAN. Just one other thing. We have excellence but not a lot of it in this country. My estimate is about one percent of our schools are really doing well, and that's a start—we have a lot to learn.

Let me give an example. Tech Prep, which is a wonderful program that combines technical preparation and academics in schools, only one percent of our schools take advantage of that.

Malaysia came over and looked at Tech Prep, said, "Hey, that's a great program." They went, wham, and overnight implemented it nationwide.

Our problem is how we replicate. We have some great stuff.

Ms. DRAPER. I would say that I think we have more than one percent. The problem is, nobody notices. There is no recognition factor. There are programs that are excellent that nobody recognizes, nobody knows about, therefore, they don't get included in that.

The CHAIRMAN. Replication is also an important thing. We agree on that. The numbers are not as important.

Senator DEWINE. I think replication and recognition is so very, very important. One of the things, one of the things that can help in society is focus on what works and to focus on the quality that does exist. And there is quality out there. And I think all of us need to do a better job on that.

Dr. Mitchell.

Ms. MITCHELL. Senator Jeffords, Senator DeWine, panel members and guests, good afternoon.

I have written that teaching is a probably one of the most important professions we have. I am going to change that to I believe it isn't a probably. It is one of the most important professions, because everyone in the country must be given the opportunity to help.

As educators, we have the opportunity to have expectations that each child can learn and take the opportunity to facilitate that learning to the fullest extent possible for all children.

To do this, we must give teachers the best preparation and must enable them to continuously work to keep current in their respective subject fields and in factors related to learning.

It is a demanding profession, as you have heard over and over today. If we look at schools as the number one learning environment outside of the home, teachers work in an environment that everyone has experienced in one way or another. Some of that has been good for some people and some of that has not been so good, at least their memories of it. Teaching appears to be something that everyone knows something about because of their school experiences.

It is not easy, however, to be a good teacher. It takes continuous knowledge and practice. Knowledge-related activities include the study of content, subject areas, study curricula, pedagogy, study of child development and learning, study of culture and society, and study of educational systems and teaching as a profession.

Practice-related experiences include apprentice teaching. Sharon spoke about the six-week student teaching situation. I was a little more fortunate. I had 12 weeks constructing and evaluating curricula, collaborative planning and teaching and communication with children, faculty and with the families.

Preservice teachers need to be developed, schools in inquiry, observation, and reflex techniques that help to inform them about their practice and their students and the effectiveness of their teaching on learning.

At the College of Education at the University of Cincinnati, we have designed outcome patterns to demonstrate professional ways of knowing, professional ways of doing, and professional ways of being.

Education reform is always going on. It is not a new concept, nor is it necessarily negative. Times change. People change. Situations change. Education should be under regular review with opportunities to change, to improve and to validate. Where would we be in using technology as a tool for learning or educating for a diverse and global society if we did not look at change?

At the University of Cincinnati, we are fortunate. We took the opportunity to make a reform in our preservice teacher education programs by becoming affiliated with national groups such as the Homes Initiative.

In addition to reviewing the research studies, we extended ourselves beyond the building and the campus and formulated partnerships with the Cincinnati Public School District. We met with, listened to, planned with teachers working in the field, although our campus faculty work in preservice programs have teaching experience, campus faculty played closer attention to being in the field so that we could renew our knowledge of the realities of K-12 classroom situations, not only as an observer but also a practitioner.

We have learned extensively while developing our Cincinnati Initiative for Teacher Education Program, which we call CITE. We learned that real partnerships are with schools, the community and parents, as well as the union, as well as other facets of that community, including business, as well as among ourselves, within our college and across the University campus.

We have learned what the content knowledge base really needs to include or what practice experiences must occur *in an outside of* the classroom so that our children will have the best prepared teachers possible.

CITE was conceptualized around outcome patterns and professional skew patterns as summarized above. Our program currently is in accordance with the five core propositions of the National Board for Professional Teaching Standards, which Sharon just alluded to, the standards of the National Council of Accreditation for Teacher Education, and the new standards for State licensure.

Our program incorporates the Homes Partnership goals. Our efforts have not gone unnoticed. The CITE program has received national recognition, including a feature in NBC Nightly News and articles in Education Week, the New York Times, and Time Magazine.

The Cincinnati Initiative is a five-year program and includes a regular liberal arts and competency specialization tract, professional development and methods courses, and a year-long internship. Some of those internships are paid through Cincinnati Public Schools.

Many students begin by looking at that as a long time just to teach. We are taking the posture that it is a long time and yet not long enough to be a good teacher. The mindset of some of our students just to teach is one of the things we are working diligently to change, and we are changing that.

Our students graduate with a keen understanding of what it means to be a good teacher. They realize that learning belongs not only to their students but for themselves as well. They learn to be creative and to work to implement best practices under the mentoring of a classroom teacher, a campus faculty member, and their peers. They exit the experience understanding that knowledge of content, collaboration, reflection on process, and involved learning processes help them to become and to remain excellent teachers.

We have several special projects available for returning adults, also. We are completing a third cohort of instructional assistance and paraprofessional and substitutes from the Cincinnati School District. All of these students are African American or have been identified as urban affiliation. These students have returned for their elementary certification.

We have a similar program in Hamilton County, which is in its first year for early childhood certification. Each of these programs will lead to a master's degree with certification. These programs have been funded through grants and through a scholarship for tuition from the University.

One of our most gifted populations in our teacher preparation programs is adults who have been in other jobs who, for a variety of reasons, are changing careers. We found years ago that our math teachers, especially females, we get students who start in a major, such as engineering, or where they have worked in industry, and find that they want to work with children or they want to work around more people.

The groups of returning adults very often brings a broader knowledge to the content than some of our students who have gone through our traditional undergraduate preparation.

If they have been working with the content, for example, in industry, and they have not only studied math or science or language but have been working for years using that knowledge and practical work experience, they bring all of that with them. In addition, they bring the maturity of age, their work background, possibly the experience of raising a family, understanding of productivity, a high level of independence, all of those things to draw on in the classroom. This is an exciting population, and we welcome them.

When returning students come to the College of Education of Cincinnati, however, many of them are astonished to find that they have at least a year, perhaps more, ahead of them before certification. That is because through experience, we know that a good teacher needs more than knowledge of content.

All of our returning students are required to complete a year-long internship and may need additional professional and/or core courses necessary for their classroom level.

For example, an individual who has used her science background in industry may not be able to help a ninth grader learn biology or chemistry. Most English majors return without any writing courses in their undergraduate degree. Although they may be extremely good writers, they don't know how to capture what they do to help children to become good writers. Sometimes returning students just know too much, and they need preparation on how to channel this knowledge to teach students appropriately.

We want our teachers to know that once they are in the teaching profession, learning doesn't stop. It changes. It takes on new meanings, but it does not stop. The preparation for teachers has to be seen as important, has to be rigorous, has to be broad based, as well as content specific, and has to be continuous.

The bottom line, for me, and I believe for the College of Education, are things that happen in the classroom that enable all of our K-12 students to be exposed to and influenced by as many persons as possible, to retain and apply as much as possible, to understand how this knowledge fits into their real and their vicarious worlds, and this is grow older and eventually leave our K-12 schools.

Those students and their teachers must understand how to learn, reflect on what they know, ability to articulate about what they do not know, and be taught ways of identifying and exploring those areas to find the answers.

The bottom line for us is to license classrooms teachers who can make that happen. Thank you.

Senator DEWINE. Thank you, Doctor. Thank you. Our next witness is Anna Marie Vaughn.

Ms. VAUGHN. Good morning, Senator Jeffords, Senator DeWine, panel members and guests.

As Senator DeWine said, we are an educational service agency. We provide services ranging from direct special education classroom services to technology and curriculum development. Most importantly, as it relates to this committee, we provide extensive professional development for administrators and teachers, including training for all entry-level teachers in our county.

We are a rural county, as opposed to my colleagues, who have all been from the urban settings, I believe. We have approximately 550 square files within our rural county, farm towns, small towns, and two small cities.

Nine of the 11 school districts within our county ranged in the bottom 25 percent of all districts statewide financially and are considered to be low-wealth districts. This year, our 11 districts employed approximately 1,080 teachers, and we had an increase of 42 entry-level teachers that attended our programming.

It is the philosophy of our County office that improved student learning hinges on the continuous improvement of classroom instruction and the ongoing development of curriculum. These elements depend on quality professional development for building leaders and instructional staff. Through our offices, quality services are provided by cooperative efforts with the school districts, as well as our higher education partners, to provide improved student learning for Columbiana County.

I heard someone say earlier today that a good teacher is a good teacher. When I became Director of Special Education in Columbiana County and I went into a classroom for children with hearing impairment, I wondered if I would identify the characteristics of effective instruction in this small classroom with children who are deaf and hearing impaired as I might in the regular classroom.

What I came out saying is the same thing, a good teacher is a good teacher, whether it is working with a small group of hearing-impaired children or with a class of seventh graders.

What were the qualities that you can easily recognize in an effective educator? A wonderful classroom manager who is efficient and organized, a skilled communicator who can reach her students at their level, someone who knows her students and plans for them accordingly.

At the core of this educator, though, were the same qualities that other effective educators build their skills on, the belief that what teachers do in the classroom makes a difference in student learning.

These outstanding teachers have a sense of responsibility for the achievement of their pupils and a belief that the teacher's actions are responsible for student success and progress. It is that sense of efficacy that promotes further reflection and ongoing professional growth. We must work to preserve the belief that what educators do in the classroom makes a difference, and we must talk about it, demonstrate it, believe it and support it.

The single most important factor in determining student achievement is the effectiveness of the teacher. The National Commission on Teaching and America's Future cited 200 studies that have shown "the only intervention that will create student achievement is a knowledgeable and skillful teacher."

Professional development funding that improves the quality of the teacher will have a direct effect on student achievement. School districts and the community must understand the benefit of investing in professional development.

In "Paying for Public Education", it was found that every additional dollar spent on raising teacher quality netted greater student achievement gains than did any other use of school resources. We must be forthright in supporting teachers in their professional growth, and we must begin to measure the benefits based on student achievement.

Student achievement is the underlying goal in all professional development. Hopefully, we are past the one-shot in-service days that are based on time served instead of on goals accomplished or the results that are accomplished. School districts recognize the need for ongoing support, peer coaching, and the variety of other forums that offer professional development linked to district goals and student achievement.

One example of that is The Primary Math Education Enhancement Program that our County Educational Service Center started based on a National Science Foundation grant awarded in 1989. And that was a five-year grant that provided extensive training and support materials to teachers, kindergarten through second grade, to change the way we teach math. Eight years later, the core group of teacher specialists K through second grade continued to meet on an ongoing basis once a month with support from our office to provide programming, schedule site visits to exemplary programs and to provide support to each other as they implement newly-acquired strategies in the classroom.

An entry-level year teacher in Columbiana County can be assured support and guidance through the important first year. Through our entry year grant and also more participation in the PRAXIS III Pilot, we have created a system of support that can be called the fifth year of teacher preparation, or the internship year.

Every entry-level teacher is assigned a school district mentor, a university cluster contact and a county consultant to provide a system of support. Fifteen of our 42 teachers in the last 4 years have been assessed by on outside assessor who provides them with an opportunity to have objective feedback regarding their classroom performance. All of our entry-year teachers and mentors participate in monthly meetings, on-site cluster meetings, portfolio development and journal writing. Our entry-year teachers experience remarkable success in their first year, and the mentors' journals reflect those changes in teaching as a result of their involvement in this program and their interactions with those entry-year teachers.

As a profession, we have an obligation to actively participate in teacher preparation. In Columbiana County, we acknowledge the importance of this by our commitment to higher education partners.

Kent State University, Youngstown State University, and Malone College are an integral part of our entry year program and PRAXIS III pilot. This involvement permits higher education, an arena to assess teacher preparation through the experiences of an entry-level teacher. It also provides higher education, an additional opportunity to partner with a veteran teacher mentor, and to determine the needs of the practicing educator in continuing education efforts. These authentic interactions have significantly impacted teacher preparation programs.

Additional interactions with both of our university partners, Kent State and Youngstown State University, encourage partnership through our consultants and our university supervisors for every student teacher that's placed in Columbiana County School Districts. We have partnered with Ken State University-Salem Campus to establish a Columbiana County Rural Teachers Center, and this center provides professional development to both the experienced teachers and student teachers assigned to our county districts.

We have established interactive distance learning classrooms in eight school districts and two Kent State Branch campuses to increase opportunities to students and teachers in Columbiana County.

This interactive distance learning program has been in operation for 4 years, and we have discovered numerous ways to utilize this system to enhance professional development in the rural county.

I had an opportunity to observe middle school size teachers taking an aerodynamics class from a NASA engineer. That provided them with an interactive way to establish activities in their classroom, to promote science in the classroom.

Through a Goals 2000 grant that we were awarded in collaboration with Youngstown State University, we enabled some examination of student teaching assessment process. We have piloted in Columbiana County. We moved it on to our neighboring Mahoning County and now are at Malone College. And this collaboration sets the stage for improved programming for all student teacher candidates.

Continuing education is also about leadership. As the instructional leaders in the districts and buildings, administrators face many demands and must continue to develop skills so that they can also address the needs of all students. Our leadership academy provides administrators with information and professional development opportunities to help them meet their challenges.

In the past 2 years, our school districts have been installing technology, and in the past 2 years, our administrators have been studying how to integrate technology appropriately in the classroom so they can help lead their teachers.

It is this type of programmatic alignment between teacher preparation, entry-level programs and professional development that provides a seamless system of support. It is projected that in the year 2000, over 50 percent of the teachers will have been in the classroom for 7 years or less. It is imperative that we structure a continuum of opportunities to develop professional educators who understand the vital link between teaching and learning. Thank you.

Senator DEWINE. Thank you very much. Dr. Lepley.

Ms. LEPLEY. Senator DeWine, Senator Jeffords, members of the audience, I wish to thank you for the opportunity to speak before you today.

First, I wish to thank Senator Jeffords, Senator DeWine for your vested interest in education. I do believe that education, and especially higher education, has a lot of problems facing us, which I hope you can help us work to resolve.

The present State of teacher education today is looking at the world around us with the walls that have crumbled. These walls were erected around us when we began to build higher education because we functioned in those days as an island, but now we realize we can no longer do that. The ivory wall crumbled, and we discovered a world radically different from the world of the last millennium. Instead of the utopian world of family warmth, home, functional family, we see a world of violence that permeates the family and schools of all socioeconomic levels. We see traditional family structures crumbled, homelessness reaching epidemic proportions and single-parent families identified as the fastest growing segment of the homeless population.

In higher education, we are asking ourselves, "Are we preparing teachers to enter a world that no longer exists?" I believe when we ask this question, we begin to realize that teacher education needs changed.

We know that Federal, State, and local mandates and accreditation agencies may marginalize our efforts, but we can change. Change is needed in three areas: Curriculum, clinical training and professional development.

When we begin to think about curriculum change, we begin to ask ourselves, "What is an effective teacher", and we realize that an effective teacher is no longer someone who has a perfect classroom in which a pen can drop and we can hear it and we have a well disciplined room of happy robots. We can no longer lock out the effects of drugs, teenage pregnancy, poverty and unemployment, when it is clearly visible in the faces of the children.

Today, the effective teachers must know things. One, as we have heard before, they have to have a strong knowledge base in the content areas, but they must also understand the laws, the laws of the protection of the rights of the children, of the parent, of the community, and they need to understand the problems of the American public.

Two. Effective teachers function as members of a team, an interdisciplinary school team, and an interprofessional collaborator with persons in health care, social services, business community, and they understand that the schools interlock with parents and with the community.

Three. Effective teachers use best practices not just for the 3Rs but also for problem solving, critical thinking, and technical proficiency, and they teach how to use these proficiencies in a way that will better society.

Four. Effective teachers embrace the assessment of their own performance and volunteer to work for certifications and acknowledge excellence in the field, such as the National Board for Professional Teaching Standards.

If the standards that we use to assess an effective teacher has changed, then curriculum has changed. Historically, in higher education, in teacher preparation, we have had three areas: Preschool, elementary and secondary. But in the State of Ohio, beginning in September, this is changing. Now teacher preparation will be offered for licensure, rather than certification, and in several areas: Early childhood, middle school, adolescence to young adults, and several programs will be offered that lead to licensure as an Intervention Specialist in the areas of mild to moderate or moderate to severe.

The second major change in teacher education that must occur is in clinical experiences. We must get their students out into the field earlier.

At the University of Rio Grande, we have expanded our time in the field. We are now placing our freshmen into the classroom as observers, and all of the years following they are out there working as either tutors or participating in teaching.

At the University of Rio Grande, we are placing our students in the field in several ways. First, the University of Rio Grande has been awarded grants that encourage participation in the classroom. The Ohio Appalachian Center for Higher Education, funded by the Ohio General Assembly, was awarded to our institution.

Since January of 1993, our students have tutored over 700 students in over 20 different school districts.

Another grant is from the Philip Morris Companies. With this grant, we plan to place some of our two-year teachers in early childhood into the classroom of regular classroom teachers trying to encourage their motivation in the four-year program, to work side by side with these people.

Both of these grants also bring our rural students on to our campus to try to encourage them to further their education.

The University of Rio Grande has a field placement officer and a coordinator of student teachers. They collaborate with school districts to place our students in schools. We also have a student teacher officer.

Also, we have begun participation in partnership with some of the local schools. Myself and my colleagues in special education work with the programs that we are a member in our fall and winter term this year. We worked in Jackson Elementary, which is one of the lowest economic areas that you have in the State. We have placed our special education teachers into the classroom with the regular educators so that they can view education from the eyes of the regular education students, and we are there to receive the special education students as they enter into the inclusion setting.

We worked into the classroom——

The CHAIRMAN. Excuse me. I have to leave now. I just want to thank you all very much. I have your testimony right here, and I will be reading it on the plane, but I want to thank you all for your very helpful testimony, and I want to thank Senator DeWine for inviting me here.

I know you are doing a lot of good work, and I know you have some real challenges in Ohio, too. You are going through the same financial mess that my State went through, and I hope you study ours and don't follow it. Anyway, it has been wonderful to be here.

Senator DEWINE. Senator Jeffords, thank you very much. He has to go back and deal with matters, such as higher education and other things.

The CHAIRMAN. Right. Thank you very much.

Ms. LEPLEY. Jackson Elementary, we worked on campus four or 5 weeks with our students in each nine-week term. The remainder of the term we were in the classroom with the student on site. We worked with our students, and we also worked with our staff. We worked with the staff on in-service training after school, worked with them on curriculum.

One of the in-services we did was writing across the curriculum, in which each student looked at the curriculum models for the State of Ohio and found out where Jackson Elementary was in that curriculum model in their K through four program.

We work with students on problem solving and faculty with problem solving. We have had positive program evaluation to expand that to million dollar schools.

A major change in our teacher preparation program, which will be launched this September, is our Induction Year Program. Students who enter this year freshman will enter the classroom as a teacher in the year 2002, 2003 as beginning teachers. They will work for a year under the guidance of a master teacher.

In preparation for this, the University of Rio Grande is participating in the grant awarded by the Ohio State University of Education. Our grant, called the Goal 2000 Entry Year Second Wave Partnership, is a coordinated effort between seven school districts, two vocational schools, and three universities.

We will offer teacher training to teachers, public school administrators and university people who wish to participate in this Entry Year Program.

The third major change that should be made is in professional development, in developing and delivery of content. Too often, teachers seek professional growth from sparse and segmented offerings which drain professional growth. Presently, in Ohio, teacher education professional development is offered in a collaborative manner between schools, universities and Ohio's Professional Development Centers which coordinate professional development offerings.

Universities are also teaming with public educators to share experiences. During our field experiences with Jackson Elementary, we identified exemplary teaching. We are co-teaching with two of the teachers on our campus this year offering professional development and sharing these experiences with other teachers in the area.

The content of professional development has changed and an effective teacher who clings to the same strategies for more than a few years will become antiquated. The content of professional development today must prepare seasoned teachers to receive K children who have E-mail addresses and surf the net. They must also prepare their seasoned teachers to teach students who lack these skills which are essential for functioning in the next millennium.

In closing, I wish to State that the Federal Government can and does influence teacher preparation in several ways. They earmark categories, aiding specific services and conducting research.

I suggest that, one, continuing research be conducted. Ohio definitely needs to follow the motivation pattern of the new teacher preparation programs and must continue to follow inclusion as it is implemented with various models.

Funding needs to be earmarked for teacher education preparation which we may use for expanded work in the fields with such programs as our University/School Partnerships and also special programs such as on our campus we have a program called Jump Start.

Jump Start works with students who enter the program who are not prepared. These children are the students who enter in a developmental education program. The Jump Start program is a weekly conference between faculty and these students to see if we can encourage them.

Resources are needed, also, to repair existing technologies and purchase new hardware and software. We need continuing support for collaborative efforts between the universities, the school and communities, funding to create and deliver teacher education through Distant Learning and satellite interactive conferences and continuing support for Ohio's professional development centers who bring professional development together in coordinated efforts.

In essence, we need to assist to prepare students to teach our children to live in the new millennium, a world that has yet to be created.

I thank you for your support to teacher education and for all of your good work for the future. I thank the members of the Senate Labor Committee and hope they will remember our children are our greatest resource. We must work together to ensure that this resource is given the best that we have to offer them. Students in today's classroom will be teaching in my classroom tomorrow, and they will be sitting in your seats. Thank you.

[The prepared statement of Ms. Lepley may be found in the appendix.]

Senator DEWINE. Thank you very much. Dr. Ball.

Mr. BALL. Thank you. Between my normal lecturing voice and the microphone, Senator Jeffords will hear me, anyway, so if you will forgive me if I project a little bit.

First, I would like to thank you for inviting the American Chemical Society here to provide testimony on the important issue of teacher preparation; specifically, science and math preparation.

I am currently serving as Chairman of the Cleveland section of the American Chemical Society. The American Chemical Society is a not-for-profit membership organization founded in 1876 and charted by a 1936 Act of the United States Congress. With a membership of more than 155,000 chemists, chemical engineers, and other practitioners of the chemical sciences, it is the world's largest scientific society.

The Society has played an important role in the development of national and State policies related to science education by providing advice to Congress and various Federal and State agencies.

In 1997, the Society issued a statement titled "Science Education Policies for Sustainable Reform." I will highlight the portions of the statement that are pertinent to today's topic.

Many changes have occurred in science education in the past decade. Nationally, and at the State level, the standards-based movement is trying to bring coherence to science curricula at the K through 12 level. The standards movement is also emphasizing the importance of inquiry-based instruction as a means of helping students to develop a knowledge and understanding of science, as well as understanding how scientists study the national world. Inquiry in science involves asking questions, making observations, examining the past to see what's already known, proposing answers and explanations, testing these hypotheses and communicating the results using oral and written skills. Inquiry-based science wins no prizes, has no reason why it shouldn't be taught in our science classrooms.

ACS has been involved in the science education reform effort for many years. Yet, for educational reforms to succeed, we must all recognize the long-term nature of the reform process. Reform must be sustained. It must not be viewed as a one time or cyclical activity. Thus, the ACS will continue to support nationwide efforts to implement standards-based science education at the K through 12 level, to provide life-long professional development opportunities for teachers, to develop assessment tools that measure a student's understanding and use of the methods of science, not just the student's abilities to recall facts; and to ensure that the resources are available for schools, colleges, and universities to encourage and support excellence and laboratory-based science courses.

Let's focus on pre-high school K through 12 grades. Research confirms that many decisions regarding future course work and career options are made by students during their pre-high school years. I know they were in my days. Thus, the curiosity and wonder shown by the youngest of learners about our national world, as Ms. Draper alluded to, must be carefully nutured. Teachers, supported and reinforced by school systems, parents, communities, and policy makers, play a pivotal role in this nurturing process.

Teachers need to be comfortable teaching science through interactive and inquiry-based modern courses, as defined in the National Science Education Standards, as indicated by the National Science Teachers Association.

Elementary and middle school teachers need a firm grounding in physical, biological, earth/space sciences. They also need preparation and practice in integrating science with other subjects, especially mathematics. If they do not have background, teachers will be reluctant to provide extensive, hands-on, inquiry-based, science education.

In order to ensure that science is taught by someone with a science background, some school systems use scientists, even in earlier grade levels, to deliver regular instruction in science. In part, because of this, mathematics and science are often taught as completely separate rather than mutually-supporting topics.

To ensure that K through eight students receive quality science instruction, the ACS supports requiring all elementary and middle school teachers to complete at least three semesters of laboratory-based, hands-on, inquiry-oriented science, including physical science to meet minimum teacher certification standards.

Of course, courses in math and mathematics education should parallel and compliment the science courses. These should be developed as cooperative and creative efforts between departments of science, mathematics and education.

The ACS supports enhancing Federal, State and local funding of professional development programs to ensure that elementary and middle school teachers have access to programs that help them expand their science knowledge base. These programs can take many forms, including remote learning. However, they must be designed to enhance teacher content knowledge in the sciences.

We support providing regular professional development programs in science and mathematics through the school system itself. One effective way to accomplish this is to prepare and support groups of master teachers and scientists to operate as a team of in-service facilitators.

We support using scientists and resource teachers where elementary teachers lack science knowledge. Not to replace them, but to motivate and assist nonspecialist teachers in the presentation of science and its integration with other subjects, especially mathematics and reading.

We support using only certified science teachers to teach science at the middle school level.

Finally, we support increasing the involvement of scientists from academe, from business and industry as mentors for both teachers and students at the K through 8 level.

Now, focus on the secondary school level. To me, students in high school represents the single most significant period in their education and a time when tentative carrer choices are made. Developing both a scientifically literate public as well as the scientist specialists needed to advance our Nation in an increasingly complex technological world, demands intellectually challenging yet developmentally appropriate curricula taught by well-qualified teachers.

Teachers need to be comfortable teaching science through interactive, inquiry-based courses. The ability to deliver quality instruction and the professional status of secondary school science teachers may be underminded by many things, leading to limited opportunities for professional growth in acquiring a necessary science background.

Current benchmarks, however, challenge teachers to achieve higher levels of competence in their teaching. To help meet the challenges, the ACS advocates requiring teachers to meet content qualifications for the courses they are required to teach. Enhanced cooperation between discipline departments and schools of education will be essential to assure that teachers are well prepared in both science content and pedagogy.

ACS also requires the same opportunity for teachers professional development as in K through 8, but at commensurate levels.

Many of our Nation's teachers are reaching retirement age and others are leaving teaching for other careers. Attracting well-prepared graduates into teaching careers is a challenge. To encourage the brightest of our students to consider careers in teaching, the ACS supports establishing State and Federally supported scholarships to support undergraduates interested in teaching secondary school science and mathematics. These scholarships should be renewable upon graduation. The student should be required to teach 1 year for every year of college support; establishing State and Federal funded scholarships to support individuals holding a discipline-centered academic degree who need pedagogical courses for secondary school certification; and modifying existing teacher certification programs to permit experienced scientists to teach in secondary schools after completing a suitable teaching internship, with the understanding that education course credits would be required for permanent certification.

You will note, Senator DeWine, that some of these points mimic some of the points in the legislation that you mentioned you introduced earlier.

Our country's economic productivity and world leadership role are derived from a sound scientific and technological base. However, dozens of national reports over the past decade have documented a wide range of deficiencies in U.S. science and mathematics education.

Only one out of three elementary teachers and less than one out of three high school teachers meet the Science Teacher's Association's recommended standards of preparation. Because our future economic viability depends on cultivating the skills and talents of all students, we must provide teachers with an adequate background in science that will facilitate the development of a well-educated scientific work force and a scientifically literate populace.

I am also submitting for the record an assessment of the status of Ohio in relation to ACS's science education guidelines. I would like to thank Senator DeWine and Senator Jeffords, in absentia, for the opportunity to testify before this committee on behalf of the panel before you.

We will be happy to answer any of your questions. Thank you very much.

[The prepared statement of Mr. Ball may be found in the appendix.]

Senator DEWINE. Why don't you remain up there, since you are standing, and I will start with you. Thank you very much, and thank all of the members of the panel.

In your prepared testimony and, again, your oral testimony, you stated that the American Chemical Society endorses the idea of alternative certification and I quote—"permit experienced scientists to teach in secondary schools after completion of a suitable teaching internship, with the understanding that education course credits would be required for permanent certification."

In your opinion, you think there are scientists who would like to take advantage of this? In other words, is there really scientists out there who would like to teach?

Mr. BALL. In my own area, Cleveland area, we have quite a few scientists who have, for example, taken early retirement who are teaching as adjunct professors who would like to be able to teach at the primary and secondary level but who, right now, cannot because of the system of undergraduate, excuse me, primary secondary education in the State of Ohio.

They are highly trained. They can contribute, if the system is available for them to contribute. So yes, there is, I think there is a pool out there that can do that.

Senator DEWINE. You do State, though, you are talking about a procedure where they would get some of the teacher training that's needed to teach. In other words, we are not talking about taking a scientist and dropping a scientist into the classroom tomorrow and say "Go teach", or are we?

Mr. **BALL**. They may very well be. As a personal example, I have been a professor of chemistry for 8 years now. I have missed my first summer school class in order to be here.

Senator **DEWINE**. I apologize.

Mr. **BALL**. That's okay. There are some good people I am working with.

However, I cannot go into high school and teach class. I don't have what the State requires to do that, even though Miami University of Ohio——

Senator **DEWINE**. Even though you are a teacher?

Mr. **BALL**. Consider me competent to teach anywhere from chemistry for business majors to graduate level mechanics.

Senator **DEWINE**. In your case, you are not someone who has not taught but you are a teacher?

Mr. **BALL**. That's correct, but I cannot go into K through 12 and teach.

Senator **DEWINE**. The results for the United States in the Third International Mathematics and Science Study were, to put it bluntly, horrible.

Mr. **BALL**. I would think deplorable, yes.

Senator **DEWINE**. Horrible. Students, again, finish near the bottom of the world in both math and science. Why do you think that was?

Mr. **BALL**. Why do I think that was? That is a loaded question.

I think what we are talking about today is part of that. On the other hand, I don't think that we can speak about these issues and assume that they are occurring in a vacuum.

There are other factors that impose themselves on education in the society and technical education in this society that contribute to that directly. Let me give you an example.

I went to school down in Texas. One of my panelists referred to the classes. I graduated from a class of 1,051 in southwest Houston. We had to take 4 years of English to graduate, and we had to take 2 years of math and 2 years of science. And those 2 years of math and science could include the things that scientists would ridicule as science and math.

The first step might be to increase those standards at the secondary level. When we start taking them seriously at that level, maybe we will start improving as a society.

Now, I know why I had to take 4 years of English. I wished they had told me. It was so that I could learn how to communicate, but they didn't tell me. I had to figure out that by myself on my own.

But if we were to put more emphasis on requiring more science and math at that level, maybe we could start bringing those up.

Senator **DEWINE**. You had a specific suggestion in regard to schools of education, and I quote, "requiring all elementary and middle school techers to complete at least three semesters of laboratory-based"—that's my emphasis— "laboratory-based, inquiry-oriented science, including physical science, to meet minimal certification standards. Courses in mathematics and mathematics education should be parallel and complementary to the science courses. These courses should be developed as cooperative and creative efforts among departments of science, mathematics and education."

Mr. **BALL**. Yes.

Senator DEWINE. Do you know of any State that meets that requirement today?

Mr. BALL. May I defer to my ACS colleague? I believe that Massachusetss, to quote my American Chemical——

From the Floor. Sir, I will be happy to go back and get that.

Senator DEWINE. I would be curious to know about that, but off the top of your head, your very educated guess, is it one out of 50 states?

Mr. BALL. We could make it do here. And, Senator, I agree with your emphasis. Laboratory-base is an integral component of science education.

Senator DEWINE. Thank you very much.

Mr. BALL. Thank you sir.

Senator DEWINE. Let me direct this question to Dr. Mitchell and Dr. Lepley, but anybody else, if you would like to answer it, you will be more than welcome.

I graduated from Miami University in 1969, School of Education. I student taught for actually four-and-a-half months at Princeton High school, north of Cincinnati.

If I went back to the School of Education today, what would happen? What would I find different? I know it is a gross generalization. What would I expect to see different? What has changed in 30 years?

Ms. MITCHELL. One of the things would be probably the age of students there. What used to be termed the nontraditional student, which would be the student who is 21 and coming back for undergrad degree, is now more of the tradition than nontraditional, so we have an older population returning.

Another difference that I think you would see immediately in our program is the emphasis on the pedagogy as well as the content.

And as Dr. Ball was talking about, the three semesters, we are on quarter systems, but all of our students in their undergraduate work must take, I believe it's 15 hours of science and 15 hours of math, regardless of the level. That's early childhood——

Senator DEWINE. Let the record reflect Dr. Ball just gave a thumbs up sign.

Ms. MITCHELL. And that's regardless of the level they will be teaching. That's something that you will probably find different.

That is one of the reasons why returning students to the College of Education sort of say it first, it is going to take many longer to just get a teaching license or teaching certification, because we do dip back and say to someone who went through humanities, for example, their undergrad degree may not show any science or math. That's a possibility, especially if they took it a long time ago. And we say yes, in our program you need to show those things happening.

Dr. Ball, you may want to come and talk to us. We have a lot of returning students who are going into science and math. We are, even this week, I have a meeting, third or fourth meeting we are having with our medical school who is interested in science teaching at the elementary and middle, childhood and adolescence levels. And they came to us and said, "We have the science background. We don't have the education background. Why don't we get together and take something out to the teachers to help them to teach science and to understand science today?" So that's another thing we're getting into.

I think, overall, what you will find in schools is that there isn't just a distinct College of Education, the College of Arts and Sciences and these don't meet. I think what you will find is a lot of collaboration across colleges, interdisciplinary requirements going on, and a lot of much, much collaboration outside of the campus with the communities, with the schools.

I think those are things that you will find if you returned.

Senator DEWINE. Would a typical student have more work with an established teacher? Is that something that I will find today or not? In other words, in going back, my experience was observing classrooms and then for four-and-a-half months I worked under two teachers.

Would the typical student, before he or she now enters a classroom or student teaches, have much more mentoring, any more internship, any more contact with teachers, or is that about the same today?

Ms. MITCHELL. No. First of all, we have a year-long internship, and it is prior to certification. It is similar to what is proposed in the Induction Year, except that we do it as a part of the certification process, so our students have that before they ever get into a——

Senator DEWINE. The answer is yes?

Ms. MITCHELL. That's right. They have that. It is with a mentor teacher. It is a team based situation where they are working with a mentor teacher, they are working with a campus professor, and they are working with their peers. Most of the teams are built around four interns with a mentor teacher and with the campus person.

Senator DEWINE. Thank you very much, Doctor.

Ms. LEPLEY. When our freshmen attend campus during the following orientation program, we meet with parents and try to explain to parents how our teacher education programs are different from the one they matriculated through, so I feel prepared for this question.

One of the things that they are going to see that's different is that when a student enters the program, no matter what their major is, education or any field, they will go through a day of testing, and that testing includes reading skills, math and science skills.

If we feel like they need additional preparation other than the courses that are designed in our catalog, then they will be required to take these courses.

I'm sorry to report that more and more students are entering higher education academically unprepared. As far as our resources can go, there is no high school, public high school in the United States that requires greater than ninth grade reading level in order to graduate.

At our institution, we receive students who matriculate through their high schools with 4.0 but enter into our school systems in a developmental education program. We have had high scholars entering our institution that have to take these courses. It is very difficult to explain to these parents why our standards are low.

So they are bringing them up. We found out that with additional assistance, through at least two nine-week periods, that we can bring these levels up with intensive work with these students.

The students that I follow, 4,000 students through the system, graduated as chemical engineers, school teachers and so forth, so these are not people who are not prepared, or intimately prepared, but they need some additional help, so that's the first thing that's going to be different.

When they do enter into the teacher education program, it is going to be sooner than in the past. In the past, they went through the liberal arts program for 2 years, and then they really didn't get into education until the third year.

We stopped that. Their freshman year they go out into the classroom and observe. We have found that people enter the fourth year and go out into class and say, "Gee, this isn't what I want", so they have wasted those years. We put them out in the classroom their freshman year, "This is it, folks, this is real life, is this what you want to do?" They are out there observing.

We start them in their second year in like student tutoring or teacher's aide type of setting, and then their last 2 years they are out there in a teaching situation.

In our special education program that we have redesigned, it will start in September, our students will be in the field over 600 hours.

That's basically how it has changed. They are more involved. We work with the community. In special education we are with them for like 5 weeks in the classroom in our methods classes and then we go out with them. We are taking them through courses so that students are together.

We track the freshman all of the way through so that they can be collaborative. It is a collaborative effort, not graduate by yourself any more.

Senator DEWINE. Doctor, if I could ask you an additional question while I have got you up there, so you don't have to keep running back and forth.

Because of the physical location of Rio Grande, I suspect that you need a perspective into the challenges of recruiting, attracting teachers into the rural parts of the State, into the rural parts of the country.

How challenging is that? What percentage, for example, of your teachers graduate from Rio Grande who are teaching candidates that actually go out into what we will consider to be rural areas, or if you want to define it more specifically?

Ms. LEPLEY. Appalachian counties of Ohio. Most of our students did. The ones that we have that have gone into the urban setting have been unsuccessful. They reported back to us they are very unhappy. Some of them have even quit their first years.

We consider this a weakness, and we have talked about it, trying to think how can we give these people more experience in urban? But, you know, lack of funds really constrains us because we just don't have the funds to take them to Cleveland or Cincinnati and spend the week in a hotel working, but this would be wonderful, because they—and then vice versa—they need experiences, the urban colleges need experiences coming down to the rural. Utopia would be to exchange, where our teaching education students go there and their teacher educators work with our students.

Senator DEWINE. But ultimately, though, we have needs in both parts of Ohio?

Ms. LEPLEY. Yes, we do, but you are correct, we follow after our students leave, we have a coordinator who follows the students their first 5 years, and our research indicates they do work among smaller school systems.

Senator DEWINE. What's the one thing, if I walk into a school of education today, just say at Rio Rande, I will find different from 30 years ago when I was at Miami?

Ms. LEPLEY. You mean just the physical structure?

Senator DEWINE. Physical structure—Let me try and rephrase it. If I was there for a few weeks, what's the most significant difference?

Ms. LEPLEY. From a personal experience, what difference I see from my own training and what I am doing now is greater collaboration between staff, because, like Dr. Shively and I co-teach. I never had anybody co-teaching before.

Our science teachers come down and work with us. We go into the mathematics, for example, I go into math methods and talk to them about certain testing that they can conduct to find what the weaknesses are.

I think that as a student it would be very different from what we did because if Dr. Ludley was my instructor, we do a lot of co-teaching, and the purpose of the program is certainly to deliver.

Also, there is collaboration between other schools of education. The School of Education used to be an island. It is not like that. We have to work with the liberal arts people, and I think that's totally different than it was before. And the fact that you are going to go out in the field when you are a freshman is going to be totally different.

Senator DEWINE. Thank you very much.

Ms. Draper, I wonder if we can explore a little bit Mayerson Academy. You talked a little bit about it as well, and I want to know if maybe you can help us understand it a little better in what you are doing there maybe by describing what you do.

If I were in a group where you were teaching, what would I hear?

Ms. DRAPER. What I did last year and what I am going to do next year might be two different things, but I will give you an overview.

My biggest responsibility last year was to work with teachers who were going through the National Board certification process. The State of Ohio provided the funds for them to undergo the certification, and so we provided support class, mentor classes, and we did a lot of the things that you heard the other teachers talking about.

But collaboration, working together. We would view videos together, look at videos of a teacher and give specific suggestions. We would go over writing assignments for the National Board and talk about, you know, where the strengths and weaknesses were and how they could be improved.

So we worked with the teachers as they needed, so it was dependent on the needs of the teachers that went through.

I think we have had maybe about 100 teachers that started with us. I am not exactly sure how many finished, because we are not given the information of who actually finished the final assessment. But out of our group, we got 15, I believe, board-certified teachers, out of the group of, I would say, about 40 or 45 that, you know, finished, went through the entire thing. So that was the largest part of what I did last year.

And, then, I will go around to other cities and other states to do the same kind of thing, encourage teachers going through the board certification process, because it is daunting.

This year, my job description is going to be a little bit different. I will continue to work with the board-certified teachers, but I will be expanding my role, and I will be doing some things with distance learning, which is expanding. It is using technology basically to expand the information that is passed along to a group of people to other cities, other states, all over the country, large amounts of information—well, small amounts of information are given out to a large amount of people; will be working with parents in the schools, teachers in the schools. We will be doing things with specific programs.

I was trying to tell Senator Jeffords about the excellence that does exist. We will find examples of excellence. We will talk about it. We will talk to the teachers. We talk to the students involved. We talk to the parents involved. And then we explain how that works and how that can be replicated in other places by parents or by teachers or even by whole schools. So that's kind of a much larger vision.

Now we're taking this idea that you talked about of replication on a very small basis, we are talking small examples of excellence, and then showing how that can be replicated to add to the excellence in other places.

Senator DEWINE. It is obvious from your background and your awards and honors that you are an excellent teacher, and let me just ask you, what do you think you bring to the Mayerson Academy? In other words, what is your unique contribution? What do you bring to that? I mean, you are dealing with teachers who have taught as long as you have, maybe somewhat similar experiences. What is it that you bring to the Academy?

Ms. DRAPER. Well, probably the best way to answer that would be to say that I bring to Mayerson the same thing I will bring to my classroom, which is energy, enthusiasm, passion. I like what I do, and I know how to get information from my brain to someone else's brain in a creative and interesting way.

And if I can do that on a larger scale so that I am doing more than just influencing the 30 kids in my classroom, I am able to influence 300 kids, or through this distance learning program maybe 3,000 kids, then I think that what I have to offer can be expanded and can reach a larger group of people that way.

Senator DEWINE. Thank you very much.

Ms. Vaughn, I wonder if you could tell me a little bit more about Columbiana rural teachers. You talked a little bit about that, but with the idea of replication, what do you all do with that is unique? What do you have that's predominantly a rural county? You are on the border of some pretty extensive urban areas, but Columbiana

County, really, most of it is fairly rural. What's unique about this county rural teachers center?

Ms. VAUGHN. The Center for Rural Teaching was developed by Kent State, and our Educational Service Center is to provide professional development opportunities within the county, within that branch campus.

We do have a learning project, interactive distance classroom. Teachers have been able to enroll in graduate level course work, but they take it from their high school, so they go to the school at their local school district and then have graduate course work over the interactive distance learning project.

We also have collaborated with Kent State, our county consultants who are in the school districts and in those buildings on a daily basis are actually the primary contact for any student teachers that are placed within the county.

We also develop practicums for all teacher preparations so that students that are in their first 2 years of the education program at Kent State are in our county school districts doing those practicum experiences, but our county consultants that are—curriculum consultants are working with them on a daily basis so that we are assured they are given a good experience and practical experience in the classroom.

Senator DEWINE. What is the cost of this?

Ms. VAUGHN. It is a collaborative effort, and that cost has been assumed by grants that we have been able to secure through Ameritech, through telecommunity grants that we have, and also through contributions through Kent State, as well as our Education Service Center.

We continue to run it. We are interested, obviously, in distance learning and communication cost as it relates to the E rate, what would be happening there, because it will affect our districts as low-wealth districts, certainly, so that is a concern, too.

Senator DEWINE. Thank you very much. Let me thank this panel, as well as the last panel. I would like to first say that those of you who have submitted written testimony, that will now, without objection, be made a part of the permanent record of this committee to supplement, to go along with the oral testimony that you gave today.

I would like to end by quoting a statement that was submitted by Sharon Draper, because I think it summarizes pretty much what this hearing is about today, and I will excerpt it and not read the whole thing.

"For education to occur"—this is Sharon Draper, the teacher—"there must be a learner, a guider of instruction, and an effective delivery system. This could be accomplished in a traditional classroom with 30 students listening to a teacher in a three-story brick building. But education also happens in homeless shelters, hospital wards, community labs, business offices, and parking lots. Education sings in hallways as well as auditoriums, and dances in small rural cottages as well as gleaming city edifices. Education soars when one child and one teacher make the connection between the known and the unknown."

"400 years ago, someone taught Shakespeare to love the language and to make it sing through the ages. Lincoln, Thoreau, King, Sandburg, all had a teacher who prepared the vision and gave them the courage to fly to its heights. What unknown heroes and artists cower in the darkness, untouched and uninspired? What moment of magic will change their darkness into light?"

I thank all of you very much, again, for your testimony, and I think it has been very helpful. We touched upon a couple of pieces of legislation, to talk a little bit this morning about pieces of legislation introduced that deals with education of teachers and continuing education of teachers, but really the purpose of this hearing today was not just to talk about those bills but, more importantly, it was to talk about the whole issue of teachers and to try to put public attention through the form of the U.S. Senate Labor Committee with Chairman Jeffords and myself here today, to focus attention on all of the quality education, quality teaching.

There is nothing more important than teachers. We have a lot of good teachers. We want more good teachers, and we want to encourage those teachers.

I thank all of you very much for your patience with us this morning and this afternoon. This was a relatively lengthy hearing, but the testimony was very helpful. Thank you.

[The appendix follows.]

APPENDIX

Prepared Statement of Merrill A. Grant

Senator Mike DeWine and Senator James Jeffords, fellow colleagues and panelists, members of the press and the public. Thank you for the opportunity to share my ideas, concerns and suggestions about the teaching profession with you this morning.

As my biography indicates, I am now in my 39th year as an urban educator. To date, I have served 15 years in four superintendencies—in Green Bay, Wisconsin; in Tucson, Arizona; in Watsonville, California, and presently in Toledo, Ohio.

In my career, it has been my pleasure to know thousands upon thousands of teachers. I've known all kinds of teachers—many extraordinarily good, some average and some unsuited to the profession.

What do I think it takes to be an effective teacher? I speak from the perspective of what I believe it takes to be an effective teacher of urban children in city schools.

I believe we need to judge the effectiveness of the teaching by the results produced by the children. Just as a great coach, working with the same raw material as a lesser coach, is able to motivate his or her athletes to learn how to compete and win, so great teachers help motivate their students to achieve. In both arenas, the challenge is intense. Teachers must have a winning mindset. They must be able to see their students accomplish great things. They must know that one day each of their students will make their unique and important contribution to society.

Toledo Public Schools is fortunate to have many great teachers. Approximately 2,600 teachers, assisted by 400 paraprofessionals and a pool of 400 substitute teachers, work in 44 elementary schools, 8 junior highs, 7 high schools and other specialized learning centers to serve the district's 40,000 students.

All school districts, Toledo included, must, however, be about continuously improving the services they deliver. A thorough understanding of the needs of their students by our teachers is imperative. Students attending Toledo Public Schools are a diverse population. 46 percent of our students are African-American, 6 percent are Hispanic and 49 percent are white. 84 percent of our teachers are white, 2 percent are Hispanic and 13 percent are black. There has been a steady decline in the number of African-American teachers in the district over time. We've begun to reverse that trend this year. The need to attract and retain minority teachers is a specific goal of Toledo Public Schools within the general goal of attracting, training and retaining the best teachers we can possibly get for our children.

I. To improve the teaching profession, communities need to assume part of the responsibility for recruiting and retaining great teachers.

This year, the district formed a Human Resources Personnel Enhancement Committee to help us work toward these goals. This is a broad-based community that includes representatives of business, outside labor, such community groups as the Urban League, the NAACP, Adelante and others, our bargaining units, teachers and our personnel administrators. The mission of the committee is to monitor and foster progress in diversifying our teaching ranks and in recruiting the best teaching talent available. Building partnerships that support and integrating services to new teachers is key.

II. To improve the teaching profession, it is not enough simply to recruit. The target population of great teachers must be cultivated and nurtured. Many future teachers are in our schools now.

Partnering with the University of Toledo and also Bowling Green State University, we have embarked on a program to "grow our own" teachers by identifying students in our high schools who could make teaching their career and then financially supporting their obtaining a college degree.

This year, two new scholarships were developed, one at each university. 39 of our high school graduates who can "grow" into our own teachers were awarded these scholarships. After they graduate from college, the majority have committed to return to Toledo Public Schools to teach. I had the personal pleasure of awarding these scholarships to our students, including one valedictorian from one of our high schools who, because of our financial support, will be able to attend college and when she returns to teach for us, also can earn a tuition-free masters degree. These are very powerful partnerships indeed!

Another group of "our own" employees are now being financially supported in their desire to become teachers. 56 of our paraprofessionals who want to become teachers are now entering teacher education at the University of Toledo. We know

BEST COPY AVAILABLE

ahead of time these individuals understand and relate positively to the urban environment of our schools.

III. To improve the teaching profession, new teachers must be able to gain advanced degrees in their fields.

One incentive to all new hires we felt we needed is one which other large urban districts in Ohio have been able to provide—that is, the opportunity to obtain a tuition-free masters degree at their area university.

This year, Toledo Public Schools reached out to the University of Toledo, a state school, and its College of Education and Allied Professions. The result of our dialogue with one another is the creation of an Urban Masters Program, a tuition free educational opportunity for our new first year teachers. This partnership with the university is the first of its kind for us and its significance to us in the future cannot be overstated.

We are working with the university to tailor this masters degree so that it will provide the training teachers need to succeed working in the urban environment with urban youth. It really is not enough simply to know the subject matter to be taught. It really is necessary to truly know, and relate, to the students you are trying to reach.

IV. To improve the teaching profession, school districts must provide the best and most comprehensive continuing education activities and programs for their teachers.

What are we doing to improve teaching skills in our veteran staff? Thanks to Ohio's Governor George Voinovich and our Ohio legislators, Toledo Public Schools has received one million dollars to create a professional development school. Again, partnering with the University of Toledo, the district is in process of establishing this school where best practices can be modeled and taught, where research into best practices in educating urban youth will be conducted, where the university and the school district will work hand in hand to help develop the best possible program for teacher education.

Providing continuing education for our teachers and administrators is a major activity of the district. The district will begin using a new K-6 reading series next year. Over 800 teachers were trained this year on using the series. We began to train the trainers for a program of cultural diversity to be presented to all schools and departments next year. We provide extensive training for special education teachers in non-violent crisis intervention, and in strategies for helping our students in special education achieve their full potentials. We've used reading, science and math specialists in our elementary schools who have helped raise our students test scores significantly in those areas.

One cannot speak of the new millennium without acknowledging the explosion in the use of technology in all working and learning environments. By December of this year, every Toledo Public Schools elementary classroom will have computers for student and teacher use and Internet access. By June of 1999, all classrooms in all our 60 schools will be wired. We are the large urban district others look to as a model for the implementation of SchoolNet, the Ohio legislature's technology initiative to place computers and related technology in our classrooms. In addition to our state funding, our district is spending significant dollars training a corps of teachers who directly assist regular classroom teachers in effectively using computers as learning tools with their students.

The new millennium is knocking on our school doors today. The Ohio legislature, through Senate Bill 55, has established what is called the Fourth Grade Guarantee. After July 1, 2001 a fourth grader must pass the Reading Test of the Ohio 4th Grade Proficiency Test in order to advance to grade five. At this time, less than half of our fourth graders pass this test. Our current first graders will have to make the guarantee.

Clearly, the implication for our district is that all our elementary teachers must become highly skilled teachers of reading. We must provide the training, the inservices, the resources to enable them to focus in with extreme clarity on teaching their students to read very well. There must be tight coordination of their efforts over the grade levels.

I have full faith and confidence in the ability of our teachers, and the administrators supporting them in this task, to meet this challenge. We CAN teach all our students to pass this reading test. Right now, we are developing a comprehensive plan to mobilize to do just that.

BEST COPY AVAILABLE

V. To improve the teaching profession, the role of the principal as instructional leader must be acknowledged.

We are speaking today about the teaching profession. Education in our individual schools is teachers, and a principal. I strongly support the need for our principals to be the instructional leaders in their schools. I firmly believe, as the late Secretary of Education under President Lyndon Johnson, Ernest Boyer, said, "I've never seen a great school that didn't have a great principal." They have a pivotal role to play in improving the quality of teaching in our schools. I believe principals can take the lead in setting high expectations in our schools and in being held accountable for results. Teacher evaluation is a key to improving the profession. I am in the camp of those who believe the principal must take primary responsibility for this function.

VI. To improve the teaching profession, parents must be involved.

As we look at our need to continuously improve, we know that we also must build greater parent involvement in our schools. Training our teachers and others to work successfully with our parents also is imperative if we hope to truly educate their children. I subscribe wholeheartedly to the author of Within Our Reach, Lisbeth Schort's view that significant gains in achievement occur when the goals of the home and the goals of the school are aligned.

My four children graduated from public schools. I often tell the story of the time when my son Ron, who is a pediatrician practicing in a high poverty area in Tucson, asked me if I knew what the greatest thing I'd ever done for him was. I thought perhaps paying for all that education was what he had in mind. But I was wrong. He said, "Dad, the greatest thing you ever did for me was to send me to DeVilbiss High School (in Toledo). Because of the cultural diversity in that school, I learned what I needed to know to help my patients today."

Public Schools remain among the greatest American institutions we have. Equipping teachers to do their best in them must be a priority for us all.

Thank you for the opportunity to participate in this hearing.

PREPARED STATEMENT OF SHARON M. DRAPER

Our existence is defined through a series of patterns. Winter's anger is softened by spring, which blooms into the fire of summer. Autumn's glory and despair is forgotten with the wrath of winter once again. Historically and traditionally, the end of the bright freedom of summer marks the beginning of a new school year. Freshly waxed hallways, gleaming with expectation and promise, and smelling of chalk dust and challenges, fade into classroom routines and repetitious rhythms. Young minds, like the buds of spring, sprout and bloom with the acquired knowledge of another year, only to return with the fading of the leaves to repeat the cycle once again.

The one constant in this continuum is the teacher, who imparts the wisdom of the past along with the news of the day. Immutable, the teacher guides, instructs, and encourages the continuous and ever-changing mirage of young faces. It is the warmth and wisdom of the teacher that will make a difference in their lives. It is the constancy and consistency of the presence of the teacher around which the educational cycle revolves.

Just as Plato instructed Aristotle, who taught countless others, as educators, the cycle of repeated learning and imparted wisdom is our burden and our joy to continue. The knowledge of the past was given to us, and we, as modern griots, must not only remember the acquired knowledge of past generations, but also provide for its perpetuity in the minds of those yet unborn.

Each generation benefits from the knowledge of the past. However, society must grow with the volume of information; no longer will the simple repetition of patterns be sufficient. The body of new information increases exponentially with each succeeding group of learners; therefore, the responsibility of the instructor becomes greater.

Infinite amounts of knowledge exist in the universe, and modern civilization is approaching the capability of touching the edges of enlightenment. Our system of instruction and comprehension must be refined in order to maximize what is able to be imparted to the next generation. Information not yet imagined will influence generations of teachers and learners still to come. Our definitions and interpretation of instruction and education will, of necessity, need to be adjusted, but some realities will remain constant.

For education to occur, there must be a learner, a guider of instruction, and an effective delivery system. This could be accomplished in a traditional classroom with thirty students listening to a teacher in a three-story brick school building. But education also happens in homeless shelters, hospital wards, computer labs, business offices, and parking lots. Education sings in hallways as well as auditoriums, and dances in small rural cottages as well as gleaming city edifices. Education soars when one child and one teacher make the connection between the unknown and the known.

We begin life with a tabula rasa—which is gradually shaded by the colors of our education and experience. It is the teacher who decorates our lives with knowledge. It is a teacher who cheers when the first sentence is mastered, who encourages when long division is difficult, who smiles gently at a first attempt at poetry, and who challenges when a new idea from literature is questioned. Never truly appreciated or acknowledged, the teacher is the silent witness to all our educational accomplishments.

Four hundred years ago someone taught Shakespeare to love the language and to make it sing through the ages. Lincoln, Thoreau, King, Sandburg—all had a teacher who prepared the vision and gave them the courage to fly to its heights. What unknown heroes and artists cower in the darkness, untouched and uninspired? What moment of magic will change their darkness into luminescence?

Magic ceases to exist in a world of reality. Metaphors are lovely, but fail to cover the harsh reality of overcrowded classrooms, bankrupted budgets, political apathy and increased social responsibility. Teachers struggle to reach lofty goals, to reach the needs of the students, to merely reach the end of the day. Very little recognition or reward is given for a job on which rests the knowledge of the past, the responsibility of the present, and the hope of the future.

The intrinsic worth of any aspect of modern society is determined through the extrinsic designation of financial value. Sports heroes and entertainment personalities, who provide merely social and recreational release, are willingly and cheerfully paid multimillion-dollar salaries, while teachers, without whom the society would be unable to progress intellectually, are given a pittance and expected to appreciate it. A civilization that honors athletes over intellectuals, that lauds entertainment while denigrating education, that philosophically separates teachers from the ranks of professionals is a society in danger of destruction.

Teachers, if they are to be what we have asked them to be, must be respected as individuals, scholars, and professionals. They need to be respected as competent in decision making as well as instruction. They should be honored for their accomplishments and rewarded, both professionally and financially, for succeeding in a task that takes skill and dedication and intelligence. Teachers need a support system that is nurturing rather than antagonistic. No longer must teachers be taken for granted as worthless bits of pedagogical insignificance, but rather celebrated for moving civilization from ignorance to enlightenment.

The next century will bring discoveries as yet undreamed. Students must be prepared to become scholars of the universe and will need teachers who can provide them with a memory of the past as well as a vision of the future. Those teachers will need to be learners as well, to grow professionally and expand with a world of education that will become increasingly specific and technological. If the best young minds of today are not encouraged to become the educators of tomorrow, who then will teach the children of the twenty-first century?

And if a system of financial support, social recognition, and professional development does not exist for those who choose to accept the awesome task of teaching, the educational system will fail, and with it will fail the chances of success for civilization. This might sound like a spurious overstatement, but until education becomes the priority of government, rather than of secondary significance, society will continue to suffer. Education of the populace and recognition of its educators is a matter of cultural and political necessity.

A child, unlike any other, yet identical to all those who have preceded and all who will follow, sits in a classroom today—hopeful, enthusiastic, curious. In that child sleeps the vision and the wisdom of the ages. The touch of a teacher will make the difference.

PREPARED STATEMENT OF CHARMAINE LEPLEY

Senator DeWine, Senate Labor Committee and members of the audience, I am Dr. Charmaine Lepley, Professor of Education and Chair-Elect of the School of Education at the University of Rio Grande, Rio Grande, Ohio. First, I wish to thank Senator DeWine for his invitation to testify regarding teacher training. I believe teacher education is one of the most important issues facing institutions of higher education today.

The present state of teacher education today is viewing the world around us after our Ivory Wall crumbled and we discovered a world radically different from the world of the last millennium. Instead of the utopian world of warm hearth, home and functional family, we now see a world in which violence permeates the environ-

BEST COPY AVAILABLE

ments of families and schools of all socioeconomic levels. We see traditional family structure crumbled, homelessness reaching epidemic proportions with single-parent families identified as the fastest-growing segment of the homeless population (Kozol, 1991). We asked ourselves, "Are we preparing students to teach in a world that no longer exists?" In asking this question we began our first step toward changing teacher education.

Teacher education today acknowledges that change is essential. We know that federal, state and local mandates and accreditation agencies may marginalize our efforts but we can and should make changes in at least three major areas: curriculum, clinical training and professional development.

As we begin to change teacher training curriculum, we ask ourselves, "What is an effective teacher?" In higher education our Ivory Walls have tumbled, in public education the classroom doors have opened. Effective teachers no longer teach well disciplined rooms of "happy robots" (Corrigan, 1992). They can no longer lock-out the effects of drugs, teenage pregnancy, crime, poverty and unemployment when it is clearly visible in the faces of the children. Today an effective teacher:

1. has a strong knowledge base of content areas, understands laws that protect rights of children and families and is cognizant of the needs, problems and conditions of America's children and their families.
2. functions as a member of an interdisciplinary school team and an interprofessional collaborator with persons in health care, social services and the business community and understands that the school is interlocked with parents and with the community
3. uses best practices to teach not only the traditional 3Rs of reading, writing and arithmetic but also problem solving, critical thinking an technical proficiency and how to use these skills in ways that will offer positive contributions to our society.
4. embrace assessment of their own performance and volunteers to work for certifications that acknowledge excellence in the field of teaching, such as the National Board for Professional Teaching Standards.

If the standards that we use to assess an effective teacher must change, then curriculum for teacher preparations must also change. Historically, teacher preparation has been divided into three areas in which certification is available: preschool, elementary and secondary and in various areas of special education. In September, 1998, the state of Ohio teacher preparation institutions will launch programs in which future teacher may seek licensure in several areas: early childhood, middle school, and adolescence to young adult. Programs will also be offered that lead to licensure as an Intervention Specialist in the areas of mild to moderate or moderate to severe.

The second major change that should be made in teacher education concerns clinical experiences which should be redesigned to include broad ranges of experiences in schools that model best practices. In the design of our teacher preparation program at the University of Rio Grade we expanded our time in the field. We realize that the students need to be placed into the schools in observation role during the freshman year and into a tutoring or teaching role during the remaining years. We are placing students into the field in several ways.

First, the University of Rio Grade has been awarded grants that encourage participation in the classroom. One grant is from the Ohio Appalachian Center for Higher Education funded by the Ohio General Assembly. Since January, 1993, our students have tutored over 700 students in 20 different school districts. Another grant is from the Philip Morris Companies. With this grant we plan to place some of our two year students, many of whom are non-traditional students, in the classroom observing classroom teachers in an effort to encourage them to enter the four year teaching program. Both grants sponsor campus visits from local students.

Secondly, the University of Rio Grande has a field placement officer and a coordinator of student teachers. They collaborate with school districts to place our students in school.

Thirdly, we have initiated a partnerships with a local school. During the first two quarters of the 1997-98 year, I participated with my fellow colleague in special education in a partnership with Jackson Elementary in Jackson, Ohio which serves one of the lowest socioeconomic areas in the state. For the first five weeks of each quarter we were on campus with our students and the last five weeks of each quarter we went with the students to the school. Our students, majoring in special education, were assigned to various faculty members including the regular classroom teacher who participated in the inclusion program at the school in which students with special needs were included in the regular classroom at various times during the day. At Jackson Elementary, we collaborated with the faculty and with our students concerning problem solving, and reflections on what worked and what did not work. Program evaluation from Jackson faculty and Rio students was positive. We will continue the program next year at Jackson Elementary and expand to the middle school which receives the Jackson Elementary special needs students.

A major change in our teacher preparation program which will be launched in September, 1998 is the Induction Year Program. No longer will we graduate teachers and thrust them into the world of reality with a sink or swim attitude. Beginning with the 2002-2003 school year, beginning teacher in Ohio will experience the Induction Year, a year under guidance of a master teacher and assessment by external evaluators. In preparation for the Induction Year, the University of Rio Grande is participating in a grant awarded by the Ohio State Department of Education. Our grant, The Goals 2000 Entry Year Second Wave Partnership is a coordinated effort between 7 school districts, 2 vocational schools, and three universities: University of Rio Grande, Ohio University Southern Campus and Shawnee State University. This grant will offer teacher training to teachers, public school administrators and university persons who wish to participate in Entry Year Program.

The third major change that should be made in teacher education concerns professional development delivery and content. Too often teachers seek professional growth from sparse and segmented offerings which drain professional growth. Presently in Ohio, teacher education professional development is offered in a collaborative manner between schools, universities and Ohio's Professional Development Centers, which coordinate professional development offerings. Universities are also teaming with public educators to share experiences. During our field experiences with Jackson Elementary, we recognized exemplary teaching practices which we wished to share with area teachers. We are presently offering two professional development workshops which we will co-teach with these teachers.

The content of professional development should also change. An effective teacher who clings to the same strategies for more than a few years will become antiquated. The content of professional development today must prepare seasoned teachers to receive kindergarten students who have e-mail address and surf the net on a daily basis. It must also prepare teachers to teach students who lack these skills which are essential for functioning in the next millennium.

In closing I wish to state that the federal government can and does influence teacher preparation in various ways such as earmarking categories, aiding specific services and conducting research. I wish to suggest to you that legislation be development to meet the following teacher education needs:

(1) Continued research concerning teacher education. For example, research must be conducted during the implementation of Ohio's new teacher preparation programs and must continue to follow inclusion as it is implemented with various models.

(2) Funding earmarked for teacher education preparation which we may use for expanded work in the field with programs such as University/School Partnerships and for efforts to retain students in higher education, such as the University of Rio Grande's JumpStart Program which offers weekly conferences between faculty advisor and entering freshmen.

(3) Resources to repair existing technology and purchase new hardware and software.

(4) Continued support for collaborative efforts between universities, schools, parents and communities.

(5) Funding to create new ways to deliver teacher education and professional development efforts such as Distant Learning, satellite interactive teleconferencing.

(6) Continued support for Ohio's Professional Development Centers.

In essence, we need assistance to prepare teachers to teach our children to live in the new millennium, a world that is yet to be created.

Senator DeWine, I thank you for your support to teacher education in the past and for all your good work. I ask you and members of the Senate Labor Committee to remember that our children are our greatest resource. We must work together to ensure that this resource is given the best that is within our power to give. Students in today's classrooms will be teaching in my classroom and sitting in your seats in the new millennium.

[Additional material may be found in committee files.]

PREPARED STATEMENT OF DAVID BALL

Senator DeWine, members of the Committee, thank you for inviting the American Chemical Society (ACS) here today to provide testimony on the important issue of teacher preparation. I am Dr. David Ball, an associate professor of chemistry at Cleveland State University and Chair of the American Chemical Society's Cleveland Local Section. The American Chemical Society is a not-for-profit membership organization, founded in 1876 and chartered by a 1937 Act of the United States Congress.

With a membership of more than 155,000 chemists, chemical engineers, and other practitioners of the chemical sciences, it is the world's largest scientific society. The Society is recognized as a world leader in fostering scientific education and research, and promoting the public's understanding of science.

The Society has played an important role in the development of national policies related to science education by providing advice to Congress and various federal agencies. The ACS state government affairs program has provided similar counsel to state institutions concerned with the science education policies and programs. In 1997, the Society issued a statement titled Science Education Policies for Sustainable Reform. I will highlight the portions of the statement that are pertinent to today's topic of discussion and submit the document in full for the record.

Since the first version of this ACS policy document was published in 1989, many changes have occurred in science education. Nationally, and at the state level, the standards-based movement is attempting to bring coherence to science curricula at the K-12 level. The standards movement is also emphasizing the importance of inquiry-based instruction as a means of helping students develop a knowledge and understanding of scientific ideas, as well as an understanding of how scientists study the natural world. Inquiry involves: making observations;posing questions; examining the literature to see what is already known through experimental evidence; proposing answers and explanations; and, communicating the results, both orally and in writing.

Efforts are also being made at the undergraduate and graduate levels to ensure that courses reflect the vitality and challenges of modern chemistry, and that instruction models the most effective pedagogical techniques. Also of concern at the undergraduate level, as at all levels of education, is the need to develop new assessment instruments to evaluate student learning outcomes, faculty effectiveness, and the curriculum.

ACS has been involved in the reform effort for many years. Yet, for educational reforms to succeed, we must all recognize the long-term nature of the reform process. Reform must be sustained, it must not be viewed as a cyclical activity. Thus, the ACS will continue to support nationwide efforts to:

Implement standards-based science education at the K-12 level, and systemic reform of under-graduate and graduate chemistry programs;

Provide life-long professional development opportunities for teachers, and those who practice the chemical sciences;

Develop assessment instruments that measure a student's understanding of science and use of the methods of science, not just the student's ability to recall science facts;

Ensure that the resources are available within schools, colleges, and universities to encourage and support excellence in laboratory-based courses; and,

Recruit and retain underrepresented groups (women, ethnic minorities and persons with disabilities) in the quantitative disciplines.

Pre-high School (K-8)

Research confirms that many decisions regarding future course work and career options are made by students during their pre-high school years. Thus, the curiosity and wonder shown by the youngest of learners about the natural world must be carefully nurtured. Teachers (supported and reinforced by school systems, communities, and policy makers) play a pivotal role in this nurturing process. Teachers need to be comfortable teaching science through interactive and inquiry-based modern courses, as defined in the National Science Education Standards.

Elementary and middle school teachers need a firm grounding in physical, biological and earth/space sciences. They also need preparation and practice in integrating science with other subjects, especially mathematics. If they do not have this background, teachers may be reluctant to provide extensive, hands-on, inquiry-based, science instruction. In order to ensure that science is taught by teachers with a science background, some school systems use science specialists, even at the earliest grade levels, to deliver regular instruction in science subjects. Thus, mathematics and science are often taught as completely separate, rather than mutually supporting, subjects. To ensure that K-8 students receive quality science instruction, ACS supports:

Requiring all elementary and middle school teachers to complete at least three semesters of laboratory-based, inquiry-oriented science, including physical science, to meet minimal certification standards. Courses in mathematics and mathematics education should be parallel and complementary to the science courses. These courses should be developed as cooperative and creative efforts among departments of science, mathematics, and education.

Enhancing federal, state, and local funding of teacher in-service professional development programs to ensure that elementary and middle school teachers have access to programs that help them to expand their science knowledge base. These programs could take many forms including technology- based remote learning. However, they must be designed to enhance teacher content knowledge in the sciences through the perspectives and methods of inquiry.

Providing regular, compulsory teacher-led, in-service professional development programs in science and mathematics through the school system. One effective way to accomplish this is to prepare and support groups of leadership teachers and scientists to operate statewide as teams of in-service facilitators.

Using science specialists/resource teachers where elementary teachers lack science knowledge, to motivate and assist non-specialist teachers in the presentation of science, and its integration with other subjects, especially mathematics and reading.

Using only certified science teachers to teach science at the middle school level.

Increasing the involvement of high school teachers and students, and scientists from academe, business, and industry as mentors for both teachers and students at the K-8 level.

Secondary Schools (9-12)

For many students, high school represents the single most significant period in their scientific education, and a time when tentative career choices are made. Developing both a scientifically literate public, as well as the science specialists needed to advance our nation in an increasingly complex technological world, demands intellectually challenging yet developmentally appropriate curricula taught by well-qualified teachers. Teachers need to be comfortable teaching science through interactive and inquiry-based modern courses.

The ability to deliver quality instruction, and the professional status of secondary school science teachers, may be undermined by heavy teaching loads and limited opportunities for teacher professional growth, especially in acquiring a stronger scientific background. The release of the National Science Education Standards and the Project 2061 Benchmarks challenges current teachers, and those preparing to teach, to achieve new levels of excellence in their teaching. To help meet these challenges, the ACS advocates:

Requiring teachers to meet content area qualifications for the courses they are required to teach. Enhanced cooperation between discipline departments and schools of education will be essential to ensure that teachers are well prepared in both science content and pedagogy, including standards-based assessment techniques.

Enhancing federal, state, and local funding of teacher professional development to ensure that secondary school science teachers have access to programs that allow them to expand their science knowledge base. These programs could take many forms, including remote learning. They must be designed to enhance teacher content knowledge in the sciences through the perspectives and methods of inquiry.

Many of our nation's teachers are reaching retirement age; others are leaving teaching for other careers. As we enter the next century, attracting well-prepared graduates into teaching careers will be a challenge. To encourage the brightest of our students to consider careers in teaching, the ACS supports:

Establishing state-and federally supported scholarships to support undergraduates interested in teaching secondary school science or mathematics. These scholarships should be renewable for up to four years, and include support of education-related, paid professional activities during the summers. On graduation, the students should be required to teach one year for every year of scholarship support.

Establishing state-and federally funded scholarships to support individuals holding a discipline-centered academic degree who need pedagogical courses for secondary school certification.

Modifying existing teacher certification programs to permit experienced scientists to teach in secondary schools after completing a suitable teaching internship, with the understanding that education course credits would be required for permanent certification.

Our country's economic productivity and world leadership role are derived from a sound scientific and technological base. However, dozens of national reports over the past decade have documented a wide range of deficiencies in U.S. science and mathematics education. Only one out of three elementary teachers and less than one in three high school teachers meet the National Science Teacher's Association's recommended standards of preparation. Because our future economic viability depends on cultivating the skills and talents of all students, we must provide teachers with an adequate background in science that will facilitate the development of a well educated scientific work force and a scientifically literate populace.

I am also submitting, for the record, an assessment of the status of Ohio in relation to ACS's science education policies. I want to thank you, Senator DeWine, for the opportunity to testify before the Senate Committee on Labor and Human Resources. I would be happy to respond to any questions.

[Additional material may be found in committee files.]

STATEMENT OF KAREN L. SCOTT

My philosophy of an effective teacher is first, and foremost, a person who has a true love for who is taught and what is taught. Every young person who walks into each classroom must also walk into the teacher's life, because only then will they allow the teacher to walk into their life. A strong relationship has to be established, one of mutual respect, caring, commitment, and understanding. An effective teacher is committed to helping each young person become aware of and achieve their potential by helping them feel self-worth, have confidence in themselves and view life, and learning, from a new perspective.

An effective teacher also has a love for what is taught. It involves having pride in the profession, subject areas, and techniques. It is having excitement for the opportunity to share information, knowledge and personal experience with young people, and help them apply it to their lives. It means having the enthusiasm to make knowledge meaningful to the students.

An effective teacher is able to mesh the content and the strategies together to facilitate an effective exchange of ideas and knowledge. This exchange begins by insuring that the teaching environment has a strong sense of community between students, and also between the student, the student's parents or guardians, and the teacher. Sharing each other's ideas and goals, listening to each other and understanding each other's perspectives are key elements that build this community relationship.

Effective teachers must have a commitment to lifelong learning. They must study their content from multiple perspectives. This includes looking at a given topic from the perspective of children at various age levels. It also means exploring a topic from the perspective of adults who understand and apply this knowledge at various levels.

Effectiveness also requires taking risks—incorporating new strategies with successful old strategies. It involves eliciting the ideas of students to establish a baseline for what needs to be addressed and how it needs to be addressed. An effective teacher is well versed at incorporating multiple strategies that revolve around understanding what the learners are thinking at any given point in the lesson and evaluating how learners' ideas have changed. It also includes utilizing the idea of metacognition, asking students to "think about their thinking" as they bring to each lesson their ideas, their prior knowledge, and their skills.

Overall, an effective teacher is one who remembers that the young people will not care how much the teacher knows until the young people know that their teacher cares.

As we consider the state of the teaching profession today, we are competing with much disruption in young people's lives, as they experience home life, school life, and personal life. We expect young people to juggle their lives in many different directions. Therefore, continual, non-interrupted time in the classroom is critical for effectiveness. It fosters a strong relationship between the teacher and the students and promotes continuity in the learning process.

With regards to teacher training and continuing education, there should be a continuum, one of lifelong learning, as mentioned before. The strength of the training can only come from within, the desire to continue to learn. It involves continually assessing one's own strategies.

Speaking from a personal perspective, continuing education represents a major component in my career. It is important for me to continue to learn additional content, new teaching strategies and a variety of assessment techniques. It is vital that I interact with other teachers, university professors. and vocational and business people. Most importantly, it means that it is important for me to conduct action research in my classroom to effectively assess what and how I teach, as this information has already made a dramatic impact in these areas.

As we address the needs of teacher training, I believe Ohio's new Performance-Based Licensure for teachers will be a key step in the professional development and growth of teachers, as it enables us to tailor our own professional development to meet the needs of the young people with whom we interact. However, we need to insure that all teachers in our state have access to various types of professional development, including content enrichment, current technology, various thinking and problem solving strategies, and community relationship building.

A vital component in training and continuing education is that teachers need to teach teachers—be active role models for each other. This concept should not apply just to veteran teachers actively working with new teachers. Everyone needs to learn from each other. Veteran teachers can learn from watching and interacting with new teachers and likewise, the inexperienced teacher can learn from observing exemplary teachers in action. But this "Teachers Teaching Teachers" concept should go beyond teachers interacting with teachers in their own building. It should include learning from the business and industrial community, university faculty members, and members within the community. I can testify how valuable it has been for me to work with and listen to teachers from all over Ohio and even throughout the United States. And, it has been equally important that I regularly interact with university faculty and have had the opportunity to work in industry. Everyone has different backgrounds, ideas and strategies that can be used in a variety of situations. It is with this collaboration and sharing that teachers can begin to offer the much-needed diversity in the classroom.

In closing, as we consider what can be done to improve the quality of the teaching profession, we all must uphold and promote a sense of pride and commitment within our schools, our community, and ourselves. It all stems back to having a love for who is taught and what is taught.

[Whereupon, at 1 p.m., the committee was adjourned.]

○

BEST COPY AVAILABLE

ISBN 0-16-057413-7
90000
9 780160 574139

74